



VOL. 92 NO. 2

2013

Child Welfare

92 Years of Excellence 1922 - 2013

Special Issue

Preventing Severe Maltreatment-Related Injuries and Fatalities: Applying a Public Health Framework and Innovative Approaches to Child Protection

Guest Editors
Zeinab Chahine
Peter J. Pecora
David Sanders
Dee Wilson

PRIOR 10

**Marygrove College Library
8425 West McNichols Road
Detroit, MI 48221**



**Together, Making Children
and Families a National Priority**

1726 M St. NW, Suite 500 • Washington, DC 20036

202-688-4200 • Fax 202-833-1689 • www.cwla.org • E-mail: journal@cwla.org

President/CEO: Christine James-Brown • Board Chair: Joseph M. Costa

Senior Editor

Gerald P. Mallon

Editor Emeritus

Gary R. Anderson

Managing Editor

Rachel Adams

Graphic Designer

Tim Murren

Advertising Manager

Karen Dunn

Art Director

Marlene Saulsbury

Review Board

Julie Cooper Altman

Adelphi University

Amy D'Andrade

San Jose State University

Sarah B. Greenblatt

*Jim Casey Youth
Opportunities Initiative*

Gary R. Anderson

Michigan State University

Angelique Day

Wayne State University

Victor Groza

*Case Western Reserve
University*

Rosemary Avery

Cornell University

Alan Dettlaff

*University of Illinois
at Chicago*

Jessica Hagaman

*University of Nebraska
at Omaha*

Sam Aymer

Hunter College

Martha Dore

The Guidance Center Inc.

Neal Halfon

*University of California,
Los Angeles*

Amy Baker

*Vincent J. Fontana Center
for Child Protection*

Ilze Earner

Hunter College

Mary Bissell

ChildFocus

Kathleen Coulborn Faller

University of Michigan

Michele Hanna

University of Denver

Wendy Whiting Blome

*Catholic University
of America*

Rowena Fong

*University of Texas
at Austin*

Mark Hardin

American Bar Association

Erma Borskey

Southern University

Priscilla Gibson

University of Minnesota

Rebecca Hegar

*University of Texas
at Arlington*

Crystal Collins-Camargo

University of Louisville

James Gleeson

*University of Illinois
at Chicago*

Corie Hebert

*Southeastern Louisiana
University*

Gretta Cushing

Casey Family Services

Manny Gonzalez

Hunter College

Peg Hess
*University of South
Carolina*

David Hussey
Beech Brook

Ben Kerman
Annie E. Casey Foundation

Bethany Lee
University of Maryland

Mary McCarthy
University at Albany

Brad McKenzie
University of Manitoba

Larry Owens
*Western Kentucky
University*

Eileen Mayers Pasztor
*California State
University, Long Beach*

Joan Pennell
*North Carolina State
University*

Peter Pecora
University of Washington

Diane Purvin
Annie E. Casey Foundation

Jini Roby
Brigham Young University

Mitchell Rosenwald
Barry University

Joseph Ryan
University of Michigan

Gina Miranda Samuels
University of Chicago

Karen Staller
University of Michigan

Richard Sullivan
*University of British
Columbia*

Lorraine Tempel
Hunter College

Elizabeth Tracy
*Case Western Reserve
University*

Ellen Whipple
Michigan State University

Mi Youn Yang
Louisiana State University

Submissions to Child Welfare should be 3,500 to 5,000 words in length, including artwork and references. An abstract of approximately 75 words should preface the article. All references should be documented according to APA style (6th ed.). Full terms, as well as the online submission process, can be found at www.cwla.org/articles/cwjsubmissions.htm.

Publication of an article does not imply endorsement of the author's opinions.

© 2013 by the Child Welfare League of America, Inc. All rights reserved.

Library of Congress Catalog Card Number 52-4649.

Child Welfare (ISSN 0009-4021) is published bimonthly by the Child Welfare League of America, Inc. Periodicals postage paid at Washington, DC, and at additional mailing offices.

POSTMASTER: Send address changes to Child Welfare League of America, 1726 M Street, Suite 500, Washington, DC 20036.

For information regarding advertising, abstracts, and indexes, contact the Managing Editor at journal@cwla.org.

Child Welfare

92 Years of Excellence 1922 - 2013

- 9 **From the Editor: The Legend of Mary Ellen Wilson and Etta Wheeler: Child Maltreatment and Protection Today**
- 13 **Special Foreword: Preventing Severe Maltreatment-Related Injuries and Fatalities: Applying a Public Health Framework and Innovative Approaches to Child Protection**
Zeinab Chahine, Peter Pecora, and David Sanders
- 19 ***Section 1: Public Health Approach and Surveillance***
- 21 **The Public Health Approach for Understanding and Preventing Child Maltreatment: A Brief Review of the Literature and a Call to Action**
Theresa Covington
- 41 **Extent and Nature of Child Maltreatment-Related Fatalities: Implications for Policy and Practice**
Jennifer Sheldon-Sherman, Dee Wilson, and Susan Smith
- 59 **Preventing Severe and Fatal Child Maltreatment: Making the Case for the Expanded Use and Integration of Data**
Emily Putnam-Hornstein, Joanne N. Wood, John Fluke, Amanda Yoshioka-Maxwell, and Rachel P. Berger

- 77 **Advancing Public Health Surveillance to Estimate Child Maltreatment Fatalities: Review and Recommendations**
Patricia G. Schnitzer, Sam P. Gulino, Ying-Ying T. Yuan
- 99 **Applying a Public Health Approach: The Role of State Health Departments in Preventing Maltreatment and Fatalities of Children**
Malia Richmond-Crum, Catherine Joyner, Sally Fogerty, Mei Ling Ellis, and Janet Saul
- 119 **Effective Primary Prevention Programs in Public Health and their Applicability to the Prevention of Child Maltreatment**
Frederick P. Rivara and Brian Johnston
- 141 **Section 2: Improving Child Protection**
- 143 **Safety and Risk Assessment Frameworks: Overview and Implications for Child Maltreatment Fatalities**
Peter J. Pecora, Zeinab Chahine, and J. Christopher Graham
- 161 **Innovative Cross-System and Community Approaches for the Prevention of Child Maltreatment**
Paul DiLorenzo, Catherine Roller White, Alex Morales, Andrea Paul, and Suma Shaw
- 179 **Applying Principles from Safety Science to Improve Child Protection**
Michael J. Cull, Tina L. Rzepnicki, Kathryn O'Day, and Richard A. Epstein

197	<i>Section 3: Reframing Perception and Response</i>
199	Soft is Hardest: Leading for Learning in Child Protection Services Following a Child Fatality <i>Andrew Turnell, Eileen Munro, and Terry Murphy</i>
217	Effective Communications Strategies: Engaging the Media, Policymakers, and the Public <i>Allison Blake, Kathy Bonk, Daniel Heimpel, and Cathy S. Wright</i>
235	<i>Summary Article</i>
237	The Road Ahead: Comprehensive and Innovative Approaches for Improving Safety and Preventing Child Maltreatment Fatalities <i>Zeinab Chahine and David Sanders</i>

From the Past to the Future The Legacy of the Wheeler-DeVries Act Today

This publication is based on a series of forums to better understand the issues and mobilize national efforts to improve safety and prevent child maltreatment-related fatalities. The Administration on Children, Youth and Families (ACYF), and the National Center for Injury Prevention and Control at the Centers for Disease Control and Prevention (CDC) joined Casey Family Programs in hosting these events, which began in the fall of 2011. Casey Family Programs' mission is to provide and improve—and, ultimately, to prevent the need for—foster care.

CWLA thanks guest editors Zeinab Chahine, Peter Pecora, David Sanders, and Dee Wilson for their invaluable assistance in producing this issue of *Child Welfare*.

Today, child maltreatment remains a significant public health problem. In 2010, 3.4 million reports of child maltreatment were made to child protective services. Of these 676,500 substantiated reports of maltreatment, 100,000 were from abuse and neglect deaths. The impact of child maltreatment is profound and long-lasting. Guest editors Pecora, Chahine, Sanders, and Wilson have done a wonderful job of synthesizing and highlighting the current research and practice in the field of child maltreatment.

From the Editor:

The Legend of Mary Ellen Wilson and Etta Wheeler: Child Maltreatment and Protection Today

The founding of the New York Society for the Prevention of Cruelty to Children in 1874 signaled the beginning of this broader concept of societal intervention on behalf of maltreated children. The Society was established in the wake of the notorious case of “Little Mary Ellen” (see http://wn.com/out_of_the_darkness_the_story_of_mary_ellen_wilson). Mary Ellen Wilson (1864–1956) was an eight-year-old New York City girl whose case of child abuse by her foster parents, Francis and Mary Connolly, led a friendly visitor, Etta Wheeler (who is often forgotten in this story—and who was, in fact, a social work hero), to seek help, unsuccessfully, from several child welfare institutions. When Wheeler saw evidence of physical abuse, malnutrition, and neglect in Mary Ellen's condition, she began to research legal options to redress and protect the young girl. Determined to do something about the abuse which she saw, Wheeler turned to Henry Bergh, president of the Society for the Prevention of Cruelty to Animals, who promptly brought the case to court, requesting that the child be removed from her caregiver immediately. Students in my child welfare classes are always shocked to hear that there was protection for cruelty against animals before there was equal protection for children in this country.

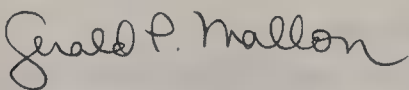
Today, child maltreatment remains the leading reason that children come to the attention of child welfare services. Approximately 3.4 million reports of child maltreatment were made in 2011. The victimization rate for FFY 2011 was 9.1 per 1,000 children, and of those 676,569 substantiated victims, an estimated 1,570 children died from abuse and neglect during that same year.

Guest editors Pecora, Chahine, Sanders, and Wilson have done a wonderful job of soliciting and editing 12 articles that approach

a wide range of issues from many of the leading experts in the child maltreatment field. The content of this special issue of *Child Welfare* reflects the presentations and discussions that took place at Casey Family Programs' Improving Child Safety and Preventing Fatalities forums, described by the editors in their foreword. The experts who presented at these forums were invited by the guest editors to collaborate and summarize their work around the major themes that emerged over the past 18 months, taking shape in the concise, peer-reviewed articles that are published here. These articles focus on five areas:

1. Presenting the latest research on risk factors related to severe child maltreatment and fatalities.
2. Reframing child maltreatment-related fatalities as a public health issue and applying a primary prevention approaches to child fatalities.
3. Identifying effective strategies to help different disciplines work towards common definitions and accurate classification and counting of serious child injuries and child fatalities.
4. Showcasing innovative and replicable efforts by public health, child welfare, and other systems for creating a learning environment for improving child protection.
5. Identifying effective communication strategies for engaging the media, policy makers, and the public to reduce the gap between public perception and the realities of child welfare and inform sound public policy in response to child fatalities.

We are sure that these multiple perspectives collected by our guest editors will provoke thoughtful dialogue and assist systems interested in creating environments for improving child protection.



Gerald P. Mallon DSW
Senior Editor

Reference:

Shelman, E.A., & Lazoritz, S. (2003). *Out of the Darkness: The Story of Mary Ellen Wilson*. Cape Coral, FL: Dolphin Moon Publishing.

Special Foreword: Preventing Severe Maltreatment-Related Injuries and Fatalities: Applying a Public Health Framework and Innovative Approaches to Child Protection

Child maltreatment is a public health problem with devastating human and financial costs, comparable to the impact of other major public health problems like Type 2 Diabetes (Fang et al., 2012). Child Protective Services agencies receive an estimated 3.3 to 3.4 million child abuse and neglect referrals involving approximately 6.2 million children each year. Equally concerning is the number of children who die from maltreatment. For FFY 2011, it is estimated that 1,570 children died from abuse and neglect in the United States (U.S. Department of Health and Human Services [DHHS], 2012). According to the 2011 U.S. Government Accountability Office (GAO) report on child maltreatment and fatalities, this number is considered to be an under-count.

Context and Content of this Special Issue

In an effort to better understand the issues and to mobilize national efforts to improve safety and prevent child maltreatment-related fatalities, Casey Family Programs, a national foundation dedicated to improving child outcomes, launched a series of forums in the fall of 2011. The Administration on Children, Youth and Families, and the National Center for Injury Prevention and Control at the Centers for Disease Control and Prevention (CDC) joined Casey in hosting these

events. The first forum, Improving Child Safety and Reducing Child Maltreatment Fatalities, was held at the Urban Institute in Washington, DC, from November 9-10, 2011, with 35 experts, policymakers, advocates, researchers, practitioners, and child welfare leaders. The second forum, attended by more than 80 participants, was held March 21-22, 2012, in Atlanta, with a focus on Applying Public Health Approaches to Improve Safety and Prevent Child Fatalities. The third forum took place on June 28-29, 2012, in Nashville, and was attended by more than 100 participants. The event was co-hosted by the Tennessee Department of Children's Services and focused on Improving Safety and Preventing Child Fatalities: Focusing on Child Protection. Most recently, on December 11, 2012, Casey Family Programs hosted a Safety Action Planning Summit in New Orleans, which was attended by public child welfare and public health representatives from ten states and the District of Columbia. These jurisdictions met with experts to develop and refine specific action plans targeted toward improving child safety and preventing fatalities.

These forums provided a tremendous opportunity to explore the issue from different perspectives, and the participants focused on three major topics:

- **Measurement:** Developing more accurate ways to classify and count maltreatment-related fatalities as a means of informing policy and practice as well as developing better child safety performance measures.
- **Child Protection Policy and Practice:** Informing child protection policies and practices for reducing child maltreatment-related fatalities.
- **Public Health Approach:** Exploring an approach to child protection that emphasizes public health strategies for preventing child maltreatment-related fatalities.

Lessons Learned

Thanks to all the participants, the following lessons learned emerged from the Casey Safety Forums:

Child maltreatment-related fatalities are a public health issue.

The prevalence of maltreatment overall in the population and the numbers of children who die due to maltreatment are substantial. A significant proportion of child maltreatment-related deaths occur in families who have no history of involvement with the child welfare system. Therefore, it would be prudent for us to look at the issue of child fatalities, not just through the lens of child welfare but from a broader public health perspective.

High-quality data, as well as other kinds of research evidence, are essential to inform the strategy and assess its results. This starts with surveillance: being able to count and measure the problem. This strategy also includes data to identify families at the highest risk, which is necessary to target upstream prevention. And it includes data to place fatalities, injuries, and “near-misses” in a systemic context, to inform system improvements that have been crucial to safety engineering successes. In addition, evidence synthesized from past research should inform the initial choices of programs and strategies, which then can be tracked for effectiveness and fine-tuned over time.

Successful strategies are comprehensive. This lesson emerges above all from the public health successes that are comprehensive in multiple ways. First, they are multi-level, potentially including components at the level of the individual, the family, the community, service systems, and public policy, as well as addressing broader public attitudes and beliefs. Second, they target several different levels of prevention—immediate prevention of death or injury, as well as more “upstream” prevention targeted at high-risk groups or individuals. They may also include universal prevention efforts, targeted towards an entire community or nation.

Strategies are not limited to any one sector or agency. The theme of multi-agency and multi-sector strategies, including health, law enforcement, and education, as well as child welfare systems and service providers, received particular attention. Other sectors or partners identified included the media, elected officials, the broader public, and anti-poverty and affordable housing experts and activists.

Successful strategies are focused. Comprehensive isn't the same as trying to do everything. The key is a focused approach, based on

data and evidence, with high-impact opportunities that can make a difference. In the public health world, continuous attention is paid to what is working and to gaps that need to be addressed.

We can succeed. Public health and safety engineering efforts have reduced deaths and injuries from many causes that initially seemed intractable. This has been true even when, at the beginning of the effort, those causes seemed deeply ingrained in cultural and individual beliefs (such as drunk driving, smoking, bike riding without helmets, low use of infant car seats) or driven by errors caused by interactions between humans (e.g., medical errors) or hampered by a belief that the injury or fatality was the result of unpreventable bad luck (e.g., plane crashes). Child protection efforts can be improved by applying these lessons learned from safety engineering and public health approaches.

The content of this special issue of the *Child Welfare* journal reflects the presentations and discussions that took place at the Casey Family Programs' Improving Child Safety and Preventing Fatalities forums. The experts who presented at these forums were invited to collaborate and summarize their work around the major themes that emerged over the past 18 months through concise peer-reviewed articles. This special issue is intended to:

1. Present the latest research on risk factors related to severe child maltreatment and fatalities in order to strengthen the efforts of child welfare, public health, and other systems to identify and respond to children at risk.
2. Reframe child maltreatment-related fatalities as a public health issue and apply primary prevention approaches, as well as cross-system approaches, to child fatalities.
3. Identify effective strategies to help different disciplines work towards common definitions, as well as accurate classification and counting of serious child injuries and child fatalities due to child maltreatment as a means of enhancing prevention and intervention policies and practices.
4. Showcase innovative safety assessment, safety engineering, and replicable efforts by public health, child welfare, and other systems for creating a learning environment for improving child protection.

5. Identify effective communication strategies for engaging the media, policy makers, and the public to reduce the gap between public perception and the realities of child welfare and inform sound public policy in response to child fatalities.

The Road Ahead

Child maltreatment in general, as well as child maltreatment-related severe injuries and deaths, are tragedies that deserve comprehensive strategies and collective efforts at the national, state, and local levels. Aligning state, county, and local resources to streamline the delivery of services and improve outcomes is essential.

Moving toward a public health model for addressing child maltreatment is a huge undertaking that requires the commitment of policy makers on various levels of government. It is encouraging that there is growing interest at the federal level in ways to more effectively address fatal maltreatment. On January 14, 2013, President Barack Obama signed into law the Protect Our Kids Act of 2012, which establishes a commission to develop a national strategy and recommendations for reducing fatalities resulting from child abuse and neglect. The commission will study data on child fatalities from abuse and neglect, review current prevention methods and best practices, and evaluate the adequacy of current programs in order to recommend a comprehensive strategy to reduce fatalities from child abuse and neglect. We commend the work of these special issue authors for their contributions to advancing the science, policy, and practice in this area.

Zeinab Chahine

Peter Pecora

David Sanders

References

- Fang, X., Florence, C., & Mercy, J. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse and Neglect*, 36, 156-165.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2012). *Child maltreatment 2011*. Retrieved from <http://www.acf.hhs.gov/programs/cb/resource/child-maltreatment-2011>.
- U.S. Government Accountability Office. (2011). *Child maltreatment: Strengthening national data on child fatalities could aid in prevention*. (GAO 11-599). Retrieved from <http://www.gao.gov/new.items/d11599.pdf>.

Section 1:

Public Health Approach and Surveillance

The Public Health Approach for Understanding and Preventing Child Maltreatment: A Brief Review of the Literature and a Call to Action

Theresa Covington
*Michigan Public Health
Institute*

Over the past 50 years, most major advances in child maltreatment have focused on protecting severely maltreated children and punishing perpetrators. This article argues that it is time to rigorously apply a public health framework to improve our understanding of, and accelerate efforts to, prevent child abuse and neglect. The article describes the fundamentals of a public health approach; discusses how this approach has been applied to improve surveillance of serious maltreatment injuries and fatalities, the understanding of risk and protective factors, and the long-term consequences of maltreatment; and describes how a public health approach is an effective means to prevention.

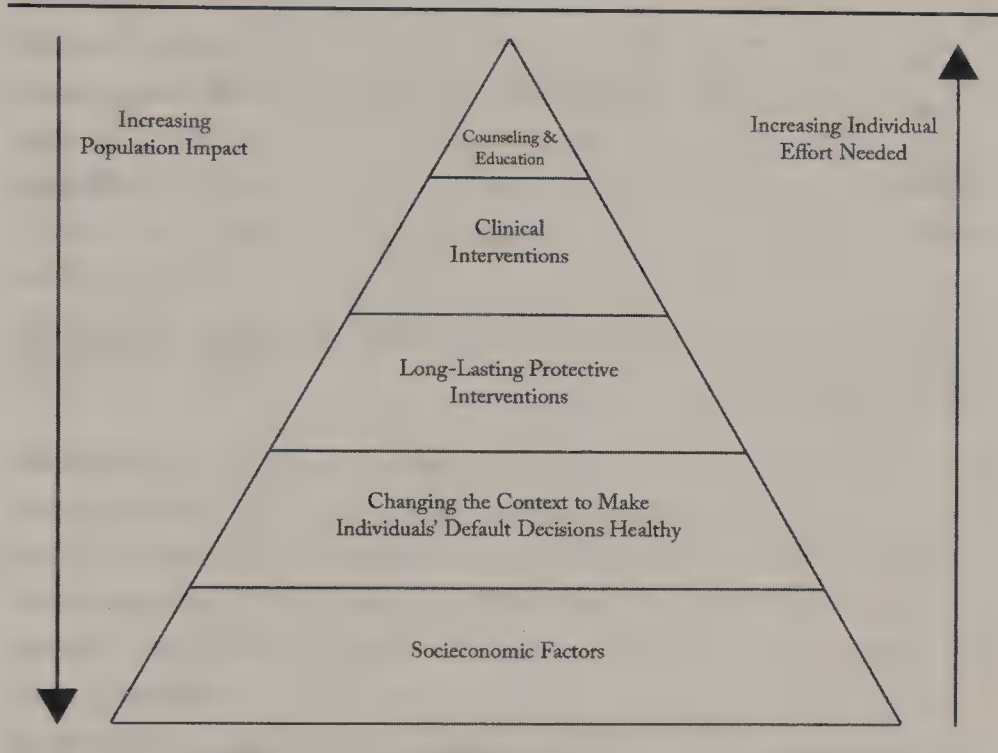
It has been 51 years since Henry Kempe's (1962) landmark paper on the battered child syndrome. Major advances in social services, criminal justice, medicine, and mental health followed Kempe's findings, although most policy initiatives have focused on child victims coupled with a punitive approach to perpetrators. Even though Kempe's work was the first published study to use public health (PH) surveillance data to define the scope of maltreatment,¹ the advances that followed did not include many initiatives that addressed child abuse and neglect within a public health framework. Fortunately, increasing attention is now being paid to value-added applications of a public health approach. This paper describes the public health approach and discusses relevant literature indicating that a PH approach is essential to achieve a better understanding of child maltreatment deaths and serious injuries, and, most importantly, to improve our ability to prevent these tragedies.

The Public Health Approach

Public health describes a complex system of science, services, programs, and policies that focus on the health and safety of entire populations. Public health brings together knowledge from medicine, epidemiology, sociology, psychology, criminology, education, and economics (Krug & Dahlberg, 2002). It is rooted in a social-ecological context that views "Health not as disconnected states (infancy, latency, adolescence, child-bearing years, old age) but as an integrated continuum. This perspective suggests that a complex interplay of biological, behavioral, psychological, social and environmental factors contribute to health outcomes across the course of a person's life" (Pies, Parthasarathy, Kotelchuck, & Lu, 2009, page 4). A PH approach is based on the understanding that interventions designed to improve health are most effective when they reach broad segments of society, require less individual effort, and address socioeconomic

1 His analysis identified only 749 U.S. children as battered in one year, including 33 child deaths—a number now known to have been significantly undercounted.

Figure 1
The Health Impact Pyramid



determinants of health, as shown in the following health impact pyramid (Figure 1) (Frieden, 2010).

A basic model of the public health approach includes four steps: (1) defining and monitoring the problem; (2) identifying risk and protective factors; (3) understanding the consequences of the problem; and (4) developing and testing prevention strategies and ensuring their widespread adoption. The approach recognizes the importance of a person's life course and that early intervention and prevention in childhood is important to the prevention of negative consequences into adulthood. Public health prevention typically includes three distinct but inter-related stages: primary, secondary, and tertiary.² For maltreatment, primary is preventing the occurrence of abuse and neglect before it even happens and is usually applied to the broad population of children. Strategies include community and

² Other terms commonly used to describe these stages include universal, selective and indicated.

service provider education, fostering coalitions and networks, changing organizational practices, and influencing policy and legislation (Cohen, 1995). Secondary prevention targets children already at risk of or being maltreated and works to prevent further harm—e.g., home visiting for high-risk parents and foster care for children. Tertiary prevention is designed to mitigate the effects of serious maltreatment—e.g., medical care for seriously injured children.

Child Maltreatment as a Public Health Problem: Making the Case

Although the contention that “child maltreatment is a public health problem” has appeared repeatedly in publications during the past 50 years, it was not until late in the past century that the research literature began describing serious child maltreatment injuries and fatalities as a public health problem—but only within the context of other forms of violence. Mercy and colleagues published a number of papers suggesting that a PH approach would emphasize prevention of injuries resulting from violence rather than treating the health consequences of these injuries, and they made specific references to child abuse (Mercy, Krug, Dahlberg, & Zwi, 2003; Mercy & O’Carroll, 1988; Mercy, Rosenberg, Powell, Broome, & Roper, 1993). In 1996, the World Health Commission declared violence to be a major public health issue (Krug, Mercy, Dahlberg, & Zwi, 2002), and followed this declaration with a report that analyzed the health and social effects, risk and protective factors, and types of prevention efforts that have been initiated for child abuse (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002). The authors contended that child abuse is a public health issue because “Public health is above all characterized by its emphasis on prevention. Rather than simply accepting or reacting to violence, its starting point is the strong conviction that violent behavior and its consequences can be prevented” (p. 5).

Although a good deal of effort in the 1990s was focused on addressing violence as a public health problem, it was not until this century that child maltreatment in and of itself was described within

a public health framework. Garrison (2005) argued that a major shift in law, practice, and funding is needed to redirect child welfare reform efforts from treatment to prevention. A workshop convened by the U.S. Surgeon General was a major federal acknowledgement that maltreatment should be a public health priority (U. S. Office of the Surgeon General, 2005). The workshop brought together multiple disciplines to begin the “discovery of what is needed, what is or is not working, and what are the opportunities for effective strategies for preventing child maltreatment and promoting child well-being.” Sanders (2005) presented the case that a public health approach would shift interventions from the clinical management of individual families to strategies that affect entire populations, and blend universal and targeted interventions to benefit a larger population of families. In 2008, the CDC developed its strategic direction for child maltreatment prevention as “promoting safe, stable and nurturing relations” (U.S. Centers for Disease Control and Prevention, 2008; Arias, 2009). The CDC funded new research on causes of maltreatment and prevention interventions such as Positive Parenting Programs (Triple P) and Project SafeCare (U. S. Centers for Disease Control and Prevention, 2010). The CDC also funded an analysis of the role of state health departments in preventing or responding to maltreatment. The majority of health departments responded that their agencies should play a role in understanding and preventing child maltreatment, but less than half had staff dedicated to maltreatment (Richmond-Crum, 2011; U.S. Centers for Disease Control and Prevention, 2012).

A brief summary of relevant literature is included here to illustrate the application of a PH approach to understanding and responding to serious injuries and deaths from child maltreatment.

Define and Monitor the Problem

The scope of child maltreatment injuries and fatalities in the United States is most commonly ascertained through a number of non-public health methodologies. Current reporting systems typically only counts maltreatment when it meets standards requiring penalties in the civil and criminal justice systems. For example, the National

Child Abuse and Neglect Data System (NCANDS) is a federal system that annually publishes data on children known to or involved with child protective services (U. S. Administration on Children, Youth and Families, 2012). The U. S. Children's Bureau also conducts an intermittent estimation of the incidence of maltreatment through the National Incidence Study on Child Abuse and Neglect. The National Survey of Children's Exposure to Violence (NatSCEV) is another nationwide survey of children to ascertain their exposure to many forms of maltreatment and victimization. NCANDS also counts child maltreatment fatalities, but mostly only of children already known to CPS at the time of death. The U. S. Government Accountability Office reported that NCANDS is an underestimate of fatalities, and that "... (C)hild welfare officials in 28 states thought that the official number of child maltreatment fatalities in their state was probably or possibly an undercount" (U.S. Government Accountability Office, 2011, p. 9). State death records do no better in counting maltreatment fatalities. Many studies have demonstrated that maltreatment deaths are highly underreported by this method (Crume, Diguseppi, Byers, Sirotiak, & Garrett, 2002; Ewigman, Kivlahan, & Land, 1993; Herman-Giddens, 1991; Herman-Giddens, Brown, Verbiest, & Carlson, 1999). A public health surveillance approach to counting maltreatment is more likely to utilize a broad population approach and identify a larger cluster of children at risk for and being maltreated than other methods. The CDC funded efforts to improve the counting of serious maltreatment injuries and deaths using public health surveillance. They first developed a common set of maltreatment definitions within a public health framework (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008). They then funded seven states to improve maltreatment surveillance by using multiple reporting sources. The findings demonstrated that by using multiple sources, applying a broader definition of maltreatment (than CPS alone) and conducting multidisciplinary case reviews of deaths, many more maltreatment-related fatalities were identified than through traditional methods, and that the case review multidisciplinary team process was the most effective means

of identifying fatalities from both physical abuse and neglect (Schnitzer, Covington, Wirtz, Verhok-Oftedahl, & Palusci, 2008; Wirtz, 2011).³ The findings for serious injuries was less conclusive.

A number of relatively recent papers indicate that researchers are also beginning to use PH surveillance methods to count serious maltreatment in specific populations. Two studies that used a PH approach did improve and increase the estimate of serious but non-fatal physical abuse of children by counting hospital visits using codes that are suggestive of maltreatment (Schnitzer, Slusher, Kruse, & Tarleton, 2011; Leventhal, Martin, & Gaither, 2012). One study estimated the numbers of head injuries secondary to maltreatment through surveys of pediatric and subspecialty practices (Bennet et al, 2011) and another through examination of emergency department visits of children known to CPS but not in out-of-home placement (Schneiderman, Hurlburt, Leslie, Horwitz, & Zhang, 2011).

The importance of this broader approach to counting maltreatment is that, even if these methods only slightly increase the number of confirmed and prosecuted cases, we can increase our understanding of abuse and neglect and work towards more focused early intervention and prevention efforts. Developing a truer count of maltreatment can also lead to stronger public policy. For example, using public health surveillance methods, Fang and colleagues (2012) estimated the economic cost per child of maltreatment and then estimated that the aggregated lifetime costs for all new 2006 U.S. maltreatment cases amounted to 585 billion dollars.

Understand Risk and Protective Factors

A risk factor is something external to or intrinsic to a child that is likely to increase the chances that maltreatment will occur; a protective factor is something that reduces vulnerability. Understanding risk and protective factors is critically important because once they are

3 All states in the U.S. now have state and/or local child death review teams, and most issue annual reports on their fatalities that include a special focus on maltreatment. Additionally, the National Center for the Review and Prevention of Child Deaths has a case reporting system in which 40 states submit comprehensive data on maltreatment deaths.

known, prevention efforts can be targeted to minimize the risks and maximize the protective factors. There is a large body of work describing the multiple and often interrelated risk and protective factors for serious maltreatment. It is well-documented that risk factors for serious injuries include poverty, substance use, low educational achievement, history of parents' own victimization, parents' poor mental health, and economically distressed and overcrowded neighborhoods (Coulton, Crampton, Irwin, Spilsbury, & Korbin, 2007). Other research indicates that gender, race and disabilities influence risk for maltreatment. Recent studies have taken a public health approach in identifying populations at risk for maltreatment. Berger and colleagues (2011) demonstrated a relationship between increased abusive head trauma (AHT) and the economic recession. Another study of the household composition of fatal child abuse victims found that children living in households with unrelated adults had nearly six times the risk of dying from maltreatment-related unintentional injuries (Schnitzer & Ewigman, 2008).

The sheer number of risk factors complicates the search for causes of maltreatment. One systematic review reported that "The extent to which each of these risk factors is causally related to the occurrence of maltreatment is hard to establish" (Gilbert et al., 2009, page 72). We also know that not all of these factors are easily modifiable.

Our knowledge, however, on risk and protective factors specific to fatalities is less well known. It is widely accepted among experts that children dying from maltreatment have similar risks as children severely maltreated but that predicting which specific children will be victims of fatal maltreatment is difficult, if not impossible. One study did find that it is possible to discriminate between children at risk for fatalities from physical abuse based on the severity of the non-fatal physical abuse, but not possible to make predictions for neglect fatalities (Graham, Stepura, Baumann, & Kern, 2010).

Understand the Long-Term Consequences of Serious Maltreatment

In addition to the immediate physical and emotional harm children suffer from maltreatment, including serious or permanent physical injuries and sometimes death, many child victims who survive experience numerous and long lasting health and developmental consequences (Shonkoff & Gardner, 2012; Gilbert et al., 2009). Understanding these consequences helps to make the case that preventing serious injuries and fatalities while children are young is critical to promoting their health and welfare into adulthood. Many of these consequences are based on new learning about children's brain development (Shonkoff & Phillips, 2000; Anda et al, 2006). Two studies have examined subsequent injury to maltreated children. A longitudinal study found that low income children who had experienced a first incident of maltreatment had almost twice the risk of dying from accidents and recurring maltreatment than other low-income children not maltreated (Jonson-Reid, Chance, & Drake, 2007). A more recent study made a similar finding for children less than five years old, and found that children with prior CPS reports died from intentional injuries at a rate 5.9 times greater than children with no CPS reports (Putnum-Hornstein, 2011).

The Adverse Childhood Experience Study (ACES) singularly spawned numerous studies pointing to poor long term medical and public health outcomes related to early adversities (Felitti et al., 1998). Other studies document specific negative outcomes, including mental health problems (Fergusson, Boden, & Horwood, 2008); suicide risks (Afifi, Boman, Fleisher, & Sareen, 2009); early sexual activity (Ompad, Ikeda, & Shah, 2005; Black et al, 2009); substance abuse (Oshri, Tubman, & Burnette, 2012); intimate partner violence (Taylor, Guterman, & Lee, 2009); delinquency (Yampolskaya, Armstrong, & McNeish, 2011); and chronic health problems lasting throughout adulthood (Widom, Spatz, Czaja, Bentley, & Johnson, 2012; Zlotnick, Tarn, & Soman, 2012).

Implement Prevention Programs

An understanding of the consequences of maltreatment makes it obvious that greater attention needs to be placed early and often on preventing maltreatment. A public health approach to maltreatment is vitally important because it includes primary prevention which can more readily impact larger segments of potentially at-risk children than secondary and tertiary prevention that protects and treats abused children. Eichner (2004) argues that adopting a public health approach will mean that the “state’s presence in the lives of families is no longer a sign of failure but an active partner in securing a child’s welfare” (p. 461).

A PH model utilizes science to design, implement, and evaluate population-based prevention strategies; and then works to replicate and disseminate those strategies that are shown to actually work (evidence based). A comparison of two government reports, both of which describe emerging and promising practices for maltreatment prevention, illustrates that the field of maltreatment prevention is increasingly focused on a public health approach. The 2002 report presented a framework for prevention and described a number of primary, secondary and tertiary programs (Thomas, Leicht, Hughes, Madigan, & Dowell, 2002). However, it offered little information regarding the most effective interventions. In contrast, the 2012 report included four key areas of evidence in the framework, including “Conceiving a broader definition of well-being, promoting protective factors as key strategies to enhance well-being, supporting evidence-informed and evidence-based practices and strengthening critical partnerships and networks” (U.S. Administration for Children and Families, 2012, p. 3).

A number of systematic reviews and reports have been published in the past several years summarizing the scope of a PH approach to child maltreatment (but not fatality) prevention. One review of systematic reviews focused on seven types of mostly primary prevention approaches: home visiting, parent education, child sex abuse prevention, abusive head trauma prevention, multiple-component interventions, media based interventions, and support and mutual aid

groups (Mikton & Butchart, 2009). A paper published in 2009 reviewed research on primary prevention strategies that target children ages 0-5, including early education programs, home visitation programs, and secondary prevention programs targeted to selective at risk populations (Daro, Barringer, & English). MacMillan and colleagues (2009) conducted systematic reviews of a number of these programs. Numerous studies report on specific programs and/or program components found to be effective in reducing maltreatment and, in some cases, improving caregiver outcomes. Studies evaluating home visitation programs are some of the most prominent, and have been summarized by Azzi-Lessing (2011) and Olds and colleagues (1995, 1997, and 2004). Triple P, a population-level primary prevention parent and family support program, has also been widely studied and has been shown to reduce substantiated cases of maltreatment, and out-of-home placements (secondary prevention) (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009; Nowak & Heinrichs, 2008). It remains uncertain whether strategies and programs that have been found to be effective in preventing child maltreatment will also be effective in preventing child maltreatment related fatalities. Two of the prevention programs that have some of the strongest experimental or quasi-experimental evidence of effects on prevention of child maltreatment, Nurse Family Partnership and Chicago Parent Child Centers, have been found to achieve significant effects on rates of child maltreatment over 15 years—i.e., a substantial percentage of the effects on child maltreatment of these programs have been delayed into the school age years, well past the age when most maltreatment-related child deaths occur. Home visitation programs have not demonstrated an effect on child maltreatment fatalities to date. There is a possibility that new prevention programs and strategies will be required to impact child maltreatment death rates for children 0-3, the age group in which 80% of maltreatment fatalities occur. There are currently efforts underway to evaluate programs that help parents understand the dangers of forceful shaking and manage inconsolable crying, a key precipitating factor in abusive head trauma injuries and deaths.

There are some examples of secondary prevention efforts originating in the child welfare system that demonstrate the importance of linking primary with these secondary prevention approaches. Pecora and colleagues (2012) summarized many of these evidence-informed interventions, and described gaps in knowledge not only of primary prevention but of child-welfare based interventions, such as differential response. Two papers describe how reviews of child maltreatment fatalities can result in significant improvements in child welfare systems' response to and the prevention of child deaths (Palusci, Covington, & Yager, 2010; Sanders & Colton, 1999).

Despite the work that has already been done, there are significant gaps in our knowledge on what strategies can be effective at either or both the primary and secondary levels to prevent serious injuries and maltreatment fatalities. Policy debates are also focused on the costs and benefits of expensive secondary prevention programs that tend to have a high cost per family versus primary prevention programs that are less costly per family. A public health approach to prevention may lead to innovative approaches that also address other modifiable risks that are not currently well understood, such as the role of mental health on caregiver capacity and child well-being.

Conclusion

In 2011, The Children's Bureau documented over 3 million reports of child maltreatment, with an estimated 681,000 child victims and 1,570 fatalities (U. S. Administration for Children, Youth and Families, 2012). These staggering numbers suggest that the prevention of maltreatment is unlikely to occur by only intervening and protecting children once harm has been alleged in a CPS report. Far greater emphasis must be placed on a public health approach that includes primary prevention to help families and children before abuse or neglect occurs.

In 2012, Zimmerman and Mercy summed up the value of the public health approach to child maltreatment by asking that we "...Imagine a community where all the adults who interact with

children...actively engage in preventing child maltreatment before an incident of abuse or neglect occurs. Imagine a community where there is a wide continuum of prevention activities that extends well beyond providing direct services to individual families; a continuum that includes public education efforts to change social norms and behavior, neighborhood activities that engage parents, and public policies and institutions that support families" (p. 4).

References

- Affif, T., Boman, J., Fleisher, W., & Sareen, J. (2009). The relationship between child abuse, parental divorce, and lifetime mental disorders and suicidality in a nationally representative adult sample. *Child Abuse & Neglect*, 33, 139-147.
- Anda, R.F., Felitti, V. J., Bremner, J. D., Whitfield, C., Perry, B. D., Dube, S. R., & Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. *European Archives of Psychiatry and Clinical Neuroscience*, 256(3), 174-186.
- Arias, I. (2009). Preventing child maltreatment through public health. *Policy & Practice*, 67(3), 17-18.
- Azzi-Lessing, L. (2011). Home visitation programs: critical issues and future directions. *Early Childhood Research Quarterly*, 26, 387-398.
- Bennett, S., Fortin, G., King, J., MacKay, M., Plint, A., & Ward, M. (2011). Head injury secondary to suspected child maltreatment: Results of a prospective Canadian national surveillance program. *International Journal of Child Abuse and Neglect*, 35, 930-936.
- Berger, R.P., Fromkin, J.B., Stutz, H., Makoroff, K., Scribano, P.V., Feldman, K...Fabio, A. (2011). Abusive head trauma during a time of unemployment: A multicenter analysis. *Journal of the American Academy of Pediatrics*, 128(4), 637-644.
- Black, M.M., Oberlander, S.E., Lewis, T., Knight, E.D., Zolotor, A.J., Litrownik, A.J., ...English, D.E. (2009). Sexual intercourse among adolescents maltreated before age 12: A prospective investigation. *Pediatrics*, 124, 941-949.
- Cohen, L., & Swift, S. (1995). The spectrum of prevention: developing a comprehensive approach to injury prevention. *Injury Prevention*, 5, 203-207.

- Coulton, C.J., Crampton, D.S., Irwin, M., Spilsbury, J.C., & Korbin, J.E. (2007). How neighborhoods influence child maltreatment: A review of the literature and alternative pathways. *Child Abuse and Neglect*, 31, 1117-1142.
- Crume, T.L., DiGuseppi, C., Byers, T., Sirotnak, A.P., & Garrett C.J. (2002). Underascertainment of child maltreatment fatalities by death certificates, 1990-1998. *Journal of the American Academy of Pediatrics*, 110(2), e18-24.
- Daro, D., Barringer, E., & English, B. (2009). Key trends in prevention: Report for the quality improvement center on early childhood. *Quality Improvement Center on Early Childhood at the Center for the Study of Social Policy*. Chicago, IL: Chapin Hall at the University of Chicago.
- Eichner, M. (2005). Children, parents and the state: rethinking relationships in the child welfare system. *Virginia Journal of Social Policy & the Law*, 12(3), 448-474.
- Ewigman, B., Kivlahan, C., & Land, G. (1993) The Missouri child fatality study: Underreporting of maltreatment fatalities among children younger than five years of age, 1983 through 1986. *Pediatrics*, 91, 330-337.
- Fang, X., Brown, D.S., Florence, C.S., & Mercy, J.A. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *International Journal of Child Abuse and Neglect*, 36, 156-165.
- Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Alison, M.S., Edwards, V.,... Marks, J.S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. *Journal of Family and Consumer Services*, 14(4), 31.
- Fergusson, D., Boden, J., & Horwood, L. (2008). Exposure to child sexual and physical abuse and adjustment in early adulthood. *Child Abuse and Neglect*, 32, 607-619.
- Frieden, T.R. (2010). A framework for public health action: The impact health pyramid. *The American Journal of Public Health*, 100(4), 590-595.
- Freudenberg, N. & Olden, K. (2010). Finding synergy: Reducing disparities in health by modifying multiple determinants. *American Journal of Public Health*, 100(S1): S25-30.
- Garrison, M. (2005). Reforming child protection: A public health perspective. *Virginia Journal of Social Policy & the Law*, 12(3), 591-637.

- Gilbert, R., Widom, C.S., Browne, K., Fergusson, D., Webb, E., & Jansson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *Lancet*, 373(9657), 68-81.
- Graham, J.C., Stepura, K., Baumann, D.J., & Kern, H. (2010). Predicting child fatalities among less-severe CPS investigations. *Children and Youth Services Review*, 32, 274-280.
- Herman-Giddens, M.E. (1991). Under recording of child abuse and neglect fatalities in North Carolina. *North Carolina Medical Journal*, 52, 634-639.
- Herman-Giddens, M.E., Brown, G., Verbiest, S., & Carlson, P. (1999). Underascertainment of child abuse mortality in the United States. *Journal of the American Medical Association*, 282, 463-467.
- Heyman, R.E. & Smith-Slep, A.M. (2006). Creating and field-testing diagnostic criteria for partner and child maltreatment. *Journal of Family Psychology*, 20(3), 397-408.
- Jonson-Reid, M., Chance, T., & Drake, B. (2007). Risk of death among children reported for nonfatal maltreatment. *Child Maltreatment*, 12, 86-95.
- Kempe, C.H. (1962). The battered child syndrome. *Journal of the American Medical Association*, 181, 17-24.
- Krug, E.G., Mercy, J.A., Dahlberg, L.L. & Zwi, B. (2002). The world report on violence and health. *Lancet*, 360(9339), 1083-1088.
- Krug, E., Dahlberg, L.L., Mercy, J.A., Zwi, A.B., & Lozano, R. (2002). World report on violence and health. *World Health Organization*. Geneva, Switzerland.
- Krugman, R.D., & Leventhal, J.M. (2005). Confronting child abuse and neglect and overcoming gaze aversion: The unmet challenge of centuries of medical practice. *International Journal of Child Abuse and Neglect*, 29(4), 307-309.
- Leeb, R.T., Paulozzi, L., Melanson, C., Simon, T., & Arias, I. (2008). Child maltreatment surveillance: Uniform definitions for public health and recommended data elements, Version 1.0. Centers for Disease Control and Prevention. Atlanta, GA.
- Leventhal, J.M., Martin, K.D., & Gaither, J.R. (2012). Using US data to estimate the incidence of serious physical abuse in children. *Journal of the American Academy of Pediatrics*, 129(3), 458-464.

- MacMillan, H.L., Wathen, C.N., Barlow, J., Fergusson, D.M., Leventhal, J.M., & Taussig, H.N. (2009). Interventions to prevent child maltreatment and associated impairment. *Lancet*, 373(9659), 250-266.
- Mercy, J. A., & O'Carroll, P.W. (1988). New directions in violence prediction: The public health arena. *Violence and Victims*, 3(4), 285-301.
- Mercy, J.A., Krug, E.G., Dahlberg, L.L., & Zwi, A.B. (2003). Violence and health: The United States in a global perspective. *American Journal of Public Health*, 93(2), 256-61.
- Mercy, J.A., Rosenberg, M.L., Powell, K.E., Broome, C.V., & Roper, W.L. (1993). Public health policy for preventing violence. *Health Affairs*, 12, 7-29.
- Mercy, J.A. & Saul, J. (2009). Creating a healthier future through early interventions for children. *Journal of the American Medical Association*, 301(21), 2262-2264.
- Mikton, C., & Butchart, A. (2009). Child maltreatment prevention: A systemic review of reviews. *World Health Organization*. 353-361. Geneva, Switzerland.
- Nowak, C. & Heinrichs, N. (2008). A comprehensive meta-analysis of Triple P-Positive Parent Program using hierarchical linear modeling: Effectiveness and moderating variables. *Clinical Child Family Psychology Review*, 11, 114-144.
- Olds, D.L., Eckenrode, J., Henderson, C.R., Kitzman, H., Powers, J., Cole, R., Luckey, D. (1997). Long term effects of home visitation on maternal life course and child abuse and neglect: Fifteen year follow-up of a randomized trial. *Journal of American Medical Association*, 278(8), 637-643.
- Olds, D.L., Henderson, C.R., Kitzman, H.J., & Cole R.E. (1995). Effects of prenatal and infancy nurse home visitation on surveillance of child maltreatment. *Journal of the American Academy of Pediatrics*, 95(3), 365-372.
- Olds, D.L., Kitzman, H., Cole, R., Robinson, J., Sidora, K., Luckey, W. Holmberg, J. (2004). Effects of nurse home-visiting on maternal life course and child development: Age 6 follow-up results of a randomized trial. *Journal of the American Academy of Pediatrics*, 114, 1550-1559.
- Ompad, D. C., Ikeda, R. M., & Shah, N. (2005). Childhood sexual abuse and age at initiation of injection drug use. *American Journal of Public health*, 95(4), 703-709.

- Oshri, A., Tubman, J.G., & Burnette, M.L. (2012). Childhood maltreatment histories, alcohol and other drug use symptoms, and sexual risk behavior in a treatment sample of adolescents. *American Journal of Public Health, 102*(S2), s250-s257.
- Palusci, V., Covington, T., & Yager, S. (2010). The effects of a citizens review panel in preventing child maltreatment fatalities. *International Journal of Child Abuse and Neglect, 34*(2), 324-331.
- Palusci, V.J. & Haney, M.L. (2010). Strategies to prevent child maltreatment and integration into practice. *APSAC Advisor, Winter*, 8-17.
- Palusci, V.J. (2012). Addressing early childhood adversity. *APSAC Advisor, Summer*, 25-26.
- Parks, S.E., Kegler, S.R., Annest, J.L., & Mercy, J. A. (2011). Characteristics of fatal abusive head trauma among children in the USA: 2003-2007: An application of the CDC operation case definition to national vital statistics data. *Injury Prevention, 18*, 193-199.
- Pecora, P.J., Sanders, D., Wilson, D., English, D., Puckett, A., & Rudlang-Perman, K. (2012). Addressing common forms of child maltreatment: Evidence-informed interventions and gaps in current knowledge. *Casey Family Programs*. Seattle, WA.
- Pies, C., Lu, M., Kotelchuck, M., & Parthasarathy, P. (APHA 2008). Creating a Paradigm Shift in Maternal and Child Health: Advancing the Life Course Perspective. 136th American Public Health Association Annual Meeting and Exposition. October 25, 2008.
- Prinz, R.J., Sanders, M.R., Shapiro, C.J., Whitaker, D.J., & Lutzker, J.R. (2009). Population-based prevention of child maltreatment: The US Triple P system population trial. *Prevention Science, 10*(1), 1-12.
- Putnam-Hornstein, E. (2011). Report of maltreatment as a risk factor for injury death: A prospective birth cohort study. *Child Maltreatment, 16*(3), 163-174.
- Richmond-Crum, M. (2011). Findings from the 2009 child maltreatment prevention environmental scan of state public health agencies. *U. S. Centers for Disease Control and Prevention*. Atlanta, Georgia.
- Sanders, M. (2010). Adopting a public health approach to the delivery of evidence based parenting interventions. *Canadian Psychology, 51*(1), 17-23.
- Sanders, R., Colton, M., & Roberts, S. (1999). Child abuse fatalities and cases of extreme concern: Lessons from reviews. *International Journal of Child Abuse and Neglect, 23*(3), 257-268.

- Schneiderman, J.U., Hurlburt, M.S., Leslie, L.K., Horwitz, S.M., & Zhang, J. (2012). Child, caregiver, and family characteristics associated with children who remain at home after a child protective services investigation. *International Journal of Child Abuse and Neglect*, 36, 4-11.
- Schnitzer, P., Covington, T., Wirtz, S.J., Verhoek-Oftedahl, W., & Palusci, V.J. (2008). Public health surveillance of fatal child maltreatment: Analysis of three state programs. *American Journal of Public Health*, 98, 296-303.
- Schnitzer, P.G., & Ewigman, B.G. (2008). Household composition and fatal unintentional injuries related to child maltreatment. *Journal of Nursing Scholarship*, 40(1), 91-97.
- Schnitzer, P.G., Slusher, P.L., Kruse, R.L., & Tarleton, M.M. (2011). Identification of ICD codes suggestive of child maltreatment. *International Journal of Child Abuse and Neglect*, 35, 3-17.
- Shonkoff, J.P., & Phillips, D. (2000). From neurons to neighborhoods. *National Research Council, Institute of Medicine*. Washington, DC.
- Taylor, C.A., Guterman, N.B., & Lee, S. (2009). Intimate partner violence, maternal stress, nativity, and risk for maternal maltreatment of young children. *American Journal of Public Health*, 99(1), 175-183.
- Thomas, D., Leicht, C., Hughes, C., Madigan, A., & Dowell, K. (2002). Emerging practices in the prevention of child abuse and neglect. Washington, DC: U.S. Department of Health and Human Services.
- U. S. Administration for Children and Families. (2012). Preventing child maltreatment and promoting well-being: A network for action. Washington DC: U.S. Department of Health and Human Services.
- U.S. Administration on Children, Youth and Families, Children's Bureau. (2012). Child maltreatment 2011. Retrieved from <http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/child-maltreatment>.
- U. S. Centers for Disease Control and Prevention. (2008). Promoting safe, stable and nurturing relationships: a strategic direction for child maltreatment prevention. Retrieved from http://www.cdc.gov/violenceprevention/pdf/CM_Strategic_Direction--OnePager-a.pdf.

- U. S. Centers for Disease Control and Prevention. (2010). Preventing child maltreatment: Program activities guide. Atlanta: U.S. Department of Health and Human Services
- U. S. Centers for Disease Control and Prevention. (2012). Tools and strategies to support health departments in child maltreatment prevention efforts webinar. Retrieved from <http://www.childreissafetynetwork.org/webinar/cdc-webinar-tools-and-strategies-support-health-departments-child-maltreatment-prevention>. Washington, DC: U.S. Department of Health and Human Services.
- U. S. Office of the Surgeon General (2005). Surgeon General's workshop on making prevention of child maltreatment a national priority: Implementing innovations of a public health approach. U.S. National Institutes of Health. Retrieved from <http://www.ncbi.nlm.nih.gov/books/NBK47486>.
- Widom, C, Spatz, C.S., Czaja, S.J., Bentley, T., & Johnson, M. S. (2012). A prospective investigation of physical health outcomes in abused and neglected children: new findings from a 30-year follow up. *American Journal of Public Health* 102(6), 1135-1144.
- Wirtz, S. (2011). Surveillance of child maltreatment-related fatalities in California using child death review teams. Proceedings from *CityMatCH Perinatal Periods of Risk learning network webinar*.
- Yompolskaya, S., Armstrong, M.I., & McNeish, R. (2011). Children placed in out-of-home care: Risk factors for involvement with the juvenile justice system. *Violence and Victims*, 26(02), 231-245.
- Zimmerman, F. & Mercy, J.A. (2010). A better start. *Zero to Three*, May, 2010, 4-10.
- Zlotnick, C., Tarn, T.W., & Soman, L.A. (2012). Life course outcomes on mental and physical health: The impact of foster care on adulthood. *American Journal of Public Health*, 102(3), 534-540.

Extent and Nature of Child Maltreatment-Related Fatalities: Implications for Policy and Practice

Jennifer Sheldon-Sherman

United States Courts

Dee Wilson

Casey Family Programs

Susan Smith

Casey Family Programs

This article reviews significant research findings regarding child maltreatment fatalities over the last thirty years. Notably, the article focuses on several important subsets of children who die from maltreatment, including young children, children reported to child protective services, and children who live in families with poor parental attachment, mental illness, substance abuse, and domestic violence.

The article then sets forth three proposals for broadening the United States' approach to child protection and reducing child maltreatment fatalities.

Despite the wealth of knowledge regarding child maltreatment deaths in the United States, there are still no proven solutions for addressing the problem. Similarly, despite improvements in child protective service (CPS) agencies' responses to child maltreatment, CPS reforms alone have not significantly reduced child deaths resulting from maltreatment. This article seeks to identify and focus on major findings in child maltreatment research to advance solutions that have clear implications for public policy, public health, and child welfare practice. By concentrating on situations in which children most frequently suffer severe injury or death, the authors propose interventions that have the potential to protect the greatest number of children.

Major Research Findings Regarding Child Victims and Perpetrators

During 2011, child protective service agencies across the country received an estimated 3.4 million referrals involving the alleged maltreatment of approximately 6.2 million children, and agencies confirmed 676,569 children as victims of abuse or neglect (Administration for Children and Families (ACF), 2011). Fifty states, along with the District of Columbia and Puerto Rico, reported a total of 1,545 child maltreatment fatalities in 2011, resulting in a rate of 2.10 deaths per 100,000 children. While the number of reported child abuse and neglect fatalities has fluctuated during the past five years, the number of maltreatment fatalities reported in the National Child Abuse and Neglect Data System (NCANDS) is currently the lowest it has been since 2007. However, much of this decrease may be due to changes in counting and classifying child deaths in a few large states (Miller, 2012).

Child injury rates have similarly fluctuated over the past five years (ACF, 2011). A recent study found a 5% increase in the number of children hospitalized for serious injuries resulting from child abuse over the twelve years from 1997 to 2009 (Leventhal & Gaither, 2012). Notably, children under the age of one accounted for more than half

of the severe cases of hospitalizations resulting from abuse in the twelve year period, and their rate of inflicted injury increased by over 10% during this time (Leventhal & Gaither, 2012). NCANDS data, on the other hand, which does not account for serious injuries resulting from maltreatment, shows a decline in physical abuse over the past five years.

Caretakers, particularly biological parents, are the most common perpetrators of maltreatment leading to fatality (Chance & Scannapieco, 2002). In 2011, biological mothers and fathers accounted for 78% of child deaths from abuse and neglect. This number is consistent with reports of non-fatal maltreatment, which indicate that for more than 81% of victims, a biological parent, either acting alone or with someone else, abused or neglected the child. In 2011, mothers acting alone or with a non-parental individual committed 39% of maltreatment fatalities, biological fathers and mothers acting together committed 22%, and fathers acting alone or with a non-parental individual committed 17%. Individuals without a parental relationship to the child accounted for 13% of maltreatment deaths (ACF, 2011).

These numbers have remained fairly consistent for the last three decades. Individuals who are responsible for abuse and neglect fatalities are usually under the age of thirty, most commonly in their late teenage years or early-to-mid-20s (Chance & Scannapieco, 2002). Males are more likely to cause death through physical force such as shaking, scalding, or battering. Females are more frequently responsible for deaths caused by neglect such as lack of supervision or suffocation roll-over deaths (Hochstadt, 2006). Fortunately, there has been some progress in developing public health strategies to address co-sleeping and suffocation (see Rivara and Johnson in this special issue).

More children die from neglect than any other type of maltreatment. In 2011, neglect was present in more than two-thirds (71.1%) of child maltreatment deaths and physical abuse was present in approximately half (48%). This is consistent with NCANDS substantiation rates that indicate the great majority of children (almost 80%) who suffer non-fatal maltreatment are neglected. Research also indicates that the risk of maltreatment recurrence is higher for neglect than for other

types of maltreatment (Hindley, Ramchandani, & Jones, 2006). Still, the largest percentage of child victims (40.8%) died from a combination of physical abuse and neglect (ACF, 2011; Douglas & Finkelhor, 2005). Thus, many fatally maltreated children are abused and neglected in multiple ways, sometimes chronically.

Younger children are particularly vulnerable to fatality and serious injury from abuse and neglect (Hochstadt, 2006). In 2011, more than four-fifths (82%) of fatally abused children were under the age of four, and 42% were younger than one. The vulnerability of very young children is also demonstrated in rates of child fatalities. Children younger than one died at a rate of approximately 16.8 per 100,000 in 2011, whereas seventeen-year-olds died at a rate of 0.12 per 100,000. As a general trend, maltreatment fatality rates decrease as children become older (ACF, 2011).

Young children also suffer high rates of non-fatal maltreatment. However, children under four comprise a much smaller portion of the total children suffering substantiated maltreatment than they do of children who die from maltreatment. In 2011, for example, children younger than one accounted for 42% of maltreatment deaths but comprised only 11.5% of non-fatal maltreatment victims. Likewise, children younger than four accounted for 82% of maltreatment deaths but comprised only 32% of non-fatal maltreatment victims. Thus, children under four die from maltreatment at rates disproportional to the rates that they experience maltreatment.

There is also a racial difference in fatalities: in 2011 approximately 40.5% of victims were Caucasian, 28.2% were African American, 17.8% were Hispanic, and 2% were American Indian or Asian. These numbers are consistent with percentages of children who suffer non-fatal abuse and neglect (ACF, 2011). While the number and percentage of African American children who die from maltreatment is lower than for Caucasian children, African American children are overrepresented in child maltreatment fatalities as compared to their proportion of the nation's child population. This finding is consistent with African American children's heightened risk for non-fatal injury from abuse and neglect (Hochstadt, 2006).

Gender differences in fatality risk are also noteworthy. In 2011, boys had a higher rate of child fatality than girls, with approximately 2.5 boys per 100,000 dying due to maltreatment versus 1.8 girls per 100,000. However, girls accounted for a slightly higher percentage of victims of non-fatal abuse and neglect (ACF, 2011). In general, most studies find that boys are slightly more likely than girls to die in maltreatment related incidents (Stiffman, Schnitzer, Adam, Kruse, & Ewigman, 2002).

Contact with child protective services is another important dimension of maltreatment fatalities. Approximately one-third of children who die from maltreatment were known to CPS before their deaths (Putnam-Hornstein, 2011; Peddle & Wang, 2001; Levine et al., 1994). According to the 2011 federal child maltreatment report, 1.4% of fatally abused and neglected children had been in foster care, while 8.8% lived in families who received family preservation services during the past five years (ACF, 2011). One study indicated that the median time between a first maltreatment report to CPS and a child's death was nine months (Jonson-Reid, Chance, & Drake, 2007). A large California study also found that a CPS report on a child younger than five was the strongest risk factor for maltreatment or injury related mortality. The same study found that children reported for maltreatment were almost six times more likely to die from intentional injury before age five than children not reported to CPS (Putnam-Hornstein, 2011).

Child victims of maltreatment deaths are disproportionately born into homes with multiple risk factors and limited resources. Mental health problems, domestic violence, substance abuse, and poverty are prevalent in families where fatal maltreatment occurs. An unpublished study by Emily Douglas (2010) examined characteristics of families known to CPS prior to a fatality and found that 56% had mental illness, 43% had domestic violence reports, 36% had drug use or abuse, and 24% abused alcohol (Douglas, 2010). Other research on fatal maltreatment suggests that domestic violence is the single most common precursor to a child maltreatment death (Mills et al., 2000).

These findings underscore research on non-fatal maltreatment which indicates that one-third to two-thirds of child abuse and neglect cases involve substance abuse (Substance Abuse and Mental Health Services Admin., 1999); that parents who are perpetrators of domestic violence are more likely to physically abuse their children (Edleson, 1999); and that parents who have annual incomes under \$15,000 are twenty-two times more likely to abuse or neglect their children than parents who make an annual income of \$30,000 or more (Every Child Matters Education Fund, 2010). Overall, the mortality rate of children born into low-income families is approximately twice that of children who are not born into low-income families (Brooks-Gunn & Duncan, 1997).

Major life stressors, such as moving, unemployment, the birth of a child or the death of a loved one, are also frequently present in families who fatally abuse or neglect their children (Brewster et al., 1998). Douglas's study found that 64% of families involved in maltreatment fatalities were frequently unemployed; 51% had recently experienced a stressful, major life event; and 45% reported being socially isolated. Additionally, research shows that parents who are unable to cope with daily stressors, such as infant crying, are more likely to engage in fatally abusive behavior. A recent study of child homicides in Kansas found that a baby's or child's inconsolable crying was the trigger for abusive incidents leading to fatality in 44.2% of cases in the study sample (Kajese, et al., 2010).

Research also indicates that children who die from maltreatment are likely to live in homes with many people, including non-family members (Schnitzer & Ewigman, 2008; Chance & Scannapieco, 2002; Stiffman et al., 2002). Children residing with unrelated adults, particularly men, are at six-to-eight times the risk of dying from maltreatment than children who live in a home with two biological parents (Schnitzer & Ewigman, 2008; Stiffman et al., 2002).

Finally, a few important studies have found that the quality of the parent-child relationship bears on a child's risk of death from maltreatment. Research indicates that children whose parents or caregivers are emotionally disconnected from them are at elevated risk of

death from maltreatment (Graham, Stepura, Baumann, & Kern, 2010; Goyer, Graham, Baumann, & Kern, 1998).

Discussion

Numerous studies conducted over several decades have consistently found a common set of risk factors associated with child deaths from abuse and neglect. However, because maltreatment deaths are (fortunately) a low base rate phenomenon, there are limitations to gathering information about victims, abusers, and the circumstances of injuries and deaths. Information is especially difficult to obtain when families are not known to CPS, and even when there are open CPS cases, information may be inaccessible because of confidentiality laws.

Despite these limitations, research has identified a number of factors that have important implications for policy and practice, including: children's age, substance abuse in the home, mental health problems, family violence, emotional disengagement of caregivers, and the presence of unrelated adults living with at-risk families. In addition, most studies have found that while only 20-30% of children who die in abuse and neglect related incidents had contact with CPS prior to death, such contact is an important risk factor.

Substantially reducing the number of fatally abused and neglected children requires broadening the focus of public child welfare agencies to include prevention and early intervention services to children in high-risk families and engaging other service delivery systems such as public health departments to support at-risk families prior to CPS reports. Waiting for babies and other young children in at-risk families to be injured or endangered before reaching out to caregivers with voluntary family support services is not sound public policy.

Applying the research on adverse childhood experiences (ACE) to maltreatment fatalities is one approach to broaden the scope of preventative services for children at risk of abuse and neglect fatality. The effects of ACEs on the health and mortality of adults into their 50s and 60s has led to discussions of public policies and programs that

would reduce children's exposure to child abuse and neglect in its various forms, as well as parental substance abuse, mental health problems, domestic violence, and separation from parents at an early age. Research indicates that ACEs are highly interrelated. A significant percentage of children in families in which even a single ACE is present are likely to be exposed to multiple adversities (Dong, et al, 2004).

The same policies and programs that reduce exposure to ACEs have the potential to reduce maltreatment related deaths of young children. Parents who receive publicly funded substance abuse or mental health services, who have been referred to law enforcement agencies due to domestic violence, or who have been identified by medical personnel due to their lack of emotional responsiveness to babies and other young children should be offered a range of family support services. Thus, practitioners should focus on ACEs, particularly with regard to how these experiences impact the parent-child relationship. The overarching public policy guideline should be: the more troubled the family and the more vulnerable the child, the earlier the intervention.

Recommendations

This section presents three recommendations to decrease severe child injuries and fatalities.

1. *Broaden the public policy focus on families who have: children ages 0-3, caretakers with serious substance abuse or mental health problems, domestic violence present during pregnancy or following a child's birth, or impoverished living conditions, regardless of whether these families have had prior contact with CPS.* Most of the families in which a child dies from maltreatment are afflicted by the same risk factors as high-risk families with open or recently open CPS cases; yet studies find that only 30% or fewer of these families have contact with CPS prior to the child's death. To significantly reduce maltreatment related deaths, service delivery systems must employ a broad variety of support mechanisms and service

providers to reach the most at-risk children, known or unknown to CPS, prior to serious child injury.

Home visiting programs are one means to ensure that families unknown to CPS receive adequate support to cope with the many stressors that lead to maltreatment. Currently there is little or no evidence regarding the efficacy of home visiting programs in reducing fatal maltreatment (Paulsell, Avellar, Sama, Martin, & Del Grosso, 2010). However, this intervention is generally accepted as an effective means of supporting and improving overall child and maternal health (Levine et al., 1994). Additionally, research shows that home visiting can positively impact a variety of outcomes including child development, school readiness, appropriate parenting practices, and family economic self-sufficiency (Paulsell, et al., 2010).

Research also shows that home visiting programs can decrease physical injury. Studies have demonstrated that programs such as “Healthy Families America” (see <http://www.healthyfamiliesamerica.org/home/index.shtml>) and the “Nurse Family Partnership” (see <http://www.nurse-familypartnership.org/>) reduce physical abuse (DuMont et al., 2009; Olds, 2006). Additionally, research indicates that some home visiting programs targeted at disadvantaged mothers—including teenagers, unmarried mothers, and those of low socioeconomic status—can reduce child injury rates (Dawley, Loch, & Bindrich, 2007). Given the link between injury and subsequent fatal maltreatment and the capacity of home visiting programs to reach low-income, single-parent families (Howard & Brooks-Dunn, 2009), home visiting may provide an important means of supporting currently underserved families with services whose benefits extend throughout childhood.

Information and public awareness campaigns are also an easily administered and effective way of broadly and inexpensively assisting families with and without CPS contact. For example, programs that help parents skillfully cope with daily

stressors, such as a baby's crying, have the potential to reduce the large percentage of abuse related deaths triggered by inconsolable infants (Dong, et al, 2004). Research shows that informational/awareness campaigns like the National Center on Shaken Baby Syndrome's "Period of PURPLE Crying Program" increase parental awareness and change parental behavior around inconsolable infant crying (Barr, et al., 2009).

Finally, programs that utilize a variety of intervention techniques, including education seminars, self-help books, DVDs, group classes, and individual counseling sessions, provide a feasible means of supporting families with young children. The "Triple-P Positive Parent Partnership," designed to be delivered as a public health initiative, promotes itself as one such system that reaches a large number of parents with a wide-ranging variety of services (see www.triplep.net). With its broad, multi-tiered approach, the Triple-P Program attempts to destigmatize the receipt of parenting support by offering diverse programming implemented through multiple service delivery mechanisms to meet varying levels of need. Studies demonstrate that the Triple-P Program reduces child maltreatment injuries requiring hospitalization (Prinz, Sanders, Whitaker, Shapiro, & Lutzker, 2009), improves parents' well-being and parenting skills (Nowak & Heinrichs, 2008; Sanders, et al., 2008), decreases foster care placements (Prinz, et al., 2009), and enhances children's general behavioral and emotional health (Sanders et al., 2008).

The broad availability of programming like that discussed above, provided through multiple delivery mechanisms by a variety of service providers, can reach the greatest number of children at risk for maltreatment prior to or concurrent with their involvement with CPS. Public health departments may be uniquely positioned to facilitate this process, engaging service providers and coordinating interventions on a systemic basis. Once supportive programming is made widely available on a cost-free or reduced-cost basis to all parents of

young children, the United States could reduce the risk of fatal maltreatment dramatically.

2. *In responding to CPS referrals, child welfare agencies must focus on non-serious allegations of abuse and neglect for children 0-5, as well as cases with clear safety threats, and intervene early in families in which multiple risk factors are present.* A significant percentage of fatally maltreated babies and young children who have prior contact with CPS have been the subject of more than one, sometimes several, CPS reports. Additionally, research shows that a significant amount of time, typically about nine months, passes between a child's first maltreatment report and subsequent death. Research has also identified a set of factors in CPS cases with non-severe allegations that increase a child's risk of death from abuse and neglect.

Given these findings and the feasibility of providing interventions between an initial maltreatment report and child death, CPS agencies should not wait for identified, actionable safety threats to engage parents in voluntary family support services, including child and respite care. Waiting for very young children who are known to CPS to be harmed, or to be at risk of imminent harm, before taking steps to mitigate risks to child safety through services and safety plans is a dangerous approach to child protection. The physical vulnerability of young children requires a major child welfare investment in early intervention services, especially for families with chronic referral histories, even when no immediate, actionable safety threats are present.

Children age 0-5 reported to CPS for alleged physical abuse are at highly elevated risk of death from inflicted injury. In a subsequent analysis of her large California study, Putnam-Hornstein found that young children reported to CPS for physical abuse were nine times more likely to die of an injury resulting from abuse than children reported for neglect (Putnam-Hornstein, personal communication, December 24, 2011). In these cases, even minor inflicted injuries to young

children should be viewed as indicators of safety threats requiring coercive CPS intervention, if necessary.

Furthermore, there is a population of families with young children chronically referred to CPS for both abuse and neglect (English, Graham, & Viyasilpa, 2011). In many of these families, parenting standards have collapsed or eroded to an alarming degree, and very young children are at highly elevated risk of serious physical and emotional harm. It is important that CPS programs recognize the significance of allegations of multiple forms of chronic maltreatment in families with babies and preschool-aged children. These families have distinctive dynamics, especially the combination of harsh and non-nurturing parenting, which warrant special CPS attention.

Finally, there is a significant population of children who have been referred to CPS for non-severe allegations that do not generally warrant coercive CPS intervention, yet are still at risk of death from maltreatment. In 2010, Graham, Stepura, Baumann, and Kern found that variables related to the “the quality of the connection between the caregiver and the child, caregiver abilities and skills, and child vulnerability” (including fragility, emotionally detached parenting, and child behaviors) were indicative of future fatality in families reported to CPS for non-severe allegations of maltreatment. The study also showed that when CPS agencies receive non-severe allegations of abuse and neglect in families with a vulnerable child (due to disability or special needs) and a caregiver lacking in capacity, caseworkers should consider the possibility of future child fatality. Additionally, the authors found that violence indicators not directly related to children, and therefore not immediately actionable by CPS, increase children’s risk of death from maltreatment (Graham et al., 2010).

CPS agencies should provide immediate support services to families when non-severe allegations of abuse and neglect

occur with one or more of the following: (1) caregivers demonstrate weak emotional connections to babies and other young children; (2) young children are physically abused even in minor ways; (3) young children are chronically referred to CPS for abuse and/or neglect; or (4) violence or violent individuals are present in the home. In these families, CPS agencies should also involve other community service providers to help assess family functioning and promote protective factors that may decrease the potential of abuse and neglect (see *Strengthening Families*, <http://www.cssp.org/reform/strengthening-families>).

3. ***Pay more attention to emotionally detached or disengaged parenting.*** Within both groups of families—those who are referred to CPS and those who are not—practitioners should focus on the quality of the parent/child relationship. Risk assessment instruments do not generally include factors related to the quality of parent-child interactions—a serious deficiency—and caseworkers may not be trained to assess the quality of the nurturing environment in which children live. But a parent's emotional disconnection from infants and toddlers elevates the risk of a maltreatment death.

According to St. James-Roberts (2012), an expert on infant crying, “some parental psychological characteristics such as a low-frustration threshold, poor parent-infant attachments, low self-confidence or inability to tolerate stress, may make some parents particularly susceptible to infant crying or unsettled night-time behavior.” St. James-Roberts also comments that “recent research has identified a much smaller group of infants who have multiple crying, sleeping and other problems after 3 months of age and has shown that these cases often involve persistent child psychological and family disturbances.” While most parents are distressed by their baby's inconsolable crying, it may be situations in which caregivers have weak emotional connections to a baby, are unable to tolerate stress, and have no

easily accessible support system that a baby's crying has the potential to lead to assault.

Additionally, a number of studies have found that the presence of unrelated males living in the home greatly increases the risk of a child's maltreatment related death. Some scholars (Herring, 2013) have speculated that biological causes account for elevated risk of male violence directed at unrelated young children. However, it is at least equally plausible that the lack of an emotional connection between a child and a caregiver accounts for the elevated risk of maltreatment death in families where unrelated males have a major caretaking role. The same dynamic may increase the risk of child death from maltreatment in families where attachment processes between infants and mothers are poorly developed due to maternal depression, incarceration, or other reasons.

Public health nurses, caseworkers, and other service providers serving families with young children should be trained to recognize indicators of emotionally unresponsive parenting and the signs of insecure or disorganized attachment in young children. In addition, any event that separates children and parents—e.g., an out-of-home placement or any lengthy separation that interferes with the capacity of parents to form strong positive emotional connections to infants and toddlers—should lead to services designed to strengthen emotional connections before children are returned to the home. In addition, both public health nurses and CPS caseworkers should be trained to utilize brief screening tools for depression, given the well-documented negative effects of maternal depression on parenting.

Conclusion

It remains uncertain what specific family support services and skills-based programs will prove most effective in reducing child

maltreatment deaths. But programs that provide emotional support, respite care, and concrete services to a broad segment of at-risk parents are a reasonable place to start given the inadequate support systems and poverty of many vulnerable families. Initially, supportive programming must be made widely available to families with young children, regardless of whether they have prior CPS contact. Additionally, caseworkers, public health nurses, and other professionals who work with at-risk families must be trained to recognize non-severe forms of abuse that still indicate risk of future fatal maltreatment along with signs of parent-infant relationships in which early attachment processes have been compromised. Particularly, the inconsolable crying of infants in troubled families with multiple vulnerabilities should be targeted as a high risk factor by both public health and child welfare agencies. Finally, interventions should focus on fostering and supporting emotionally responsive parenting in families struggling with multiple adversities to offer the best protection for infants and toddlers.

References

- Administration for Children and Families, U.S. Department of Health and Human Services. (2011). *Child Maltreatment*. Washington, DC: Author.
- Barr, R. G., Rivara, F. P., Barr, M., Cummings, P., Taylor, J., Lengua, L. J., & Meredith-Benitz, E. (2009). Effectiveness of educational materials designed to change knowledge and behaviors regarding crying and shaken-baby syndrome in mothers of newborns: a randomized, controlled trial. *Pediatrics*, 123(3), 972–980.
- Brewster, A. L., Nelson, J. P., Hymel, K. P., Colby, D. R., Lucas, D. R., McCanne, T. R., & Milner, J. S. (1998). Victim, perpetrator, family, and incident characteristics of 32 infant maltreatment deaths in the United States Air Force. *Child abuse & Neglect*, 22(2), 91–101.
- Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *The Future of Children*, 55–71.

- Chance, T., & Scannapieco, M. (2002). Ecological correlates of child maltreatment: Similarities and differences between child fatality and nonfatality cases. *Child and Adolescent Social Work Journal*, 19(2), 139–161.
- Dawley, K., Loch, J., & Bindrich, I. (2007). The nurse-family partnership. *AJN The American Journal of Nursing*, 107(11), 60–67.
- Daro, D. A., & Harding, K. A. (1999). Healthy Families America: Using research to enhance practice. *The Future of Children*, 152–176.
- Dong, M., Anda, R. F., Felitti, V. J., Dube, S. R., Williamson, D. F., Thompson, T. J., ... & Giles, W. H. (2004). The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. *Child Abuse & Neglect*, 28(7), 771–784.
- Douglas E. (2010). Child maltreatment fatalities: Perceptions and experiences of child welfare professionals. Retrieved December 21, 2012.
- Douglas, E. (2005). Child maltreatment fatalities: What do we know, what have we done and where do we go from here. *Child Victimization*, 4–1.
- Douglas, E., & Finkelhor, D. (2005). *Childhood sexual abuse fact sheet*. Retrieved December 21, 2012.
- DuMont, K., Mitchell-Herzfeld, S., Greene, R., Lee, E., Lowenfels, A., Rodriguez, M., & Dorabawila, V. (2008). Healthy Families New York (HFNY) randomized trial: Effects on early child abuse and neglect. *Child Abuse & Neglect*, 32(3), 295–315.
- Edleson, J. L. (1999). The overlap between child maltreatment and woman battering. *Violence Against Women*, 5(2), 134–154.
- English, D., Graham, J. C., & Viyasilpa, S. (2011). Longitudinal studies of child abuse and neglect: The fourth five years. Final Report to the Office of Child Abuse and Neglect, Grant 90–CA–1679, Administration for Children and Families, Washington DC.
- Every Child Matters Education Fund. (2010). *We Can Do Better: Child Abuse and Neglect Deaths in America*.
- Gober, K. J., Graham, J. C., Baumann, D. J., & Kern, H. (1998). The Texas child fatality study: A comparison of fatality and non-fatality cases. Texas Department of Protective and Regulatory Services.

- Graham, J. C., Stepura, K., Baumann, D. J., & Kern, H. (2010). Predicting child fatalities among less-severe CPS investigations. *Children and Youth Services Review*, 32(2), 274–280.
- Herring, D. J. (2013). Evolutionary Perspectives on Child Welfare Law. Evolutionary Perspectives on Child Welfare Law (November 19, 2012). *The Evolution of Violence*, Springer, 2012–32.
- Hindley, N., Ramchandani, P. G., & Jones, D. P. (2006). Risk factors for recurrence of maltreatment: a systematic review. *Archives of Disease in Childhood*, 91(9), 744–752.
- Hochstadt, N. J. (2006). Child death review teams: A vital component of child protection. *Child Welfare—New York*, 85(4), 653.
- Howard, K. S., & Brooks-Gunn, J. (2009). The role of home-visiting programs in preventing child abuse and neglect. *The Future of Children*, 19(2), 119–146.
- Jonson-Reid, M., Chance, T., & Drake, B. (2007). Risk of death among children reported for nonfatal maltreatment. *Child Maltreatment*, 12(1), 86–95.
- Kajese, et al. (2010). Characteristics of child abuse homicides in the state of Kansas from 1994–2007. *Child Abuse & Neglect*, 35(2), 147–154.
- Leventhal, J. M., & Gaither, J. R. (2012). Incidence of serious injuries due to physical abuse in the United States: 1997 to 2009. *Pediatrics*, 130(5), e847–e852.
- Levine, M., Freeman, J., & Compaan, C. (1994). Maltreatment-Related Fatalities: Issues of Policy and Prevention. *Law & Policy*, 16(4), 449–471.
- Miller, C. (2012, May 26). Child-neglect deaths fall—as Florida redefines child neglect. *The Miami Herald*. Retrieved from www.miamiherald.com.
- Mills, L. G., Friend, C., Conroy, K., Fleck-Henderson, A., Krug, S., Magen, R. H., Thomas, R. L., & Trudeau, J. H. (2000). Child protection and domestic violence: Training, practice, and policy issues. *Children and Youth Services Review*, 22(5), 315–332.
- Nowak, C. & Heinrichs, N. (2008). A comprehensive meta-analysis of Triple P – Positive Parenting Program using hierarchical linear modeling: Effectiveness and moderating variables. *Clinical Child and Family Psychology Review*, 11, 114–144.

- Olds, D. L. (2006). The nurse-family partnership: An evidence-based preventive intervention. *Infant Mental Health Journal*, 27(1), 5–25.
- Paulsell, D., Avellar, S., Sama Martin, E., & Del Grosso, P. (2010). Home visiting evidence of effectiveness review: Executive summary. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation.
- Peddle, N., & Wang, C. T. (2001). Current trends in child abuse prevention, reporting, and fatalities: The 1999 fifty state survey. Chicago, IL: Prevent Child Abuse America.
- Prinz, R.J., Sanders, M.R., Shapiro, C.J., Whitaker, D.J., & Lutzker, J.R. (2009). Population-based prevention of child maltreatment: The U.S. Triple P system population trial. *Prevention Science*, 10(1), 1–12.
- Putnam-Hornstein, E. (2011). Report of Maltreatment as a Risk Factor for Injury Death A Prospective Birth Cohort Study. *Child Maltreatment*, 16(3), 163–174.
- Sanders, M.R., Ralph, A., Sofronoff, K., Gardiner, P., Thompson, R., Dwyer, S., & Bidwell, K. (2008). Every Family: A population approach to reducing behavioral and emotional problems in children making the transition to school. *Journal of Primary Prevention*, 29, 197–222.
- Schnitzer, P. G., & Ewigman, B. G. (2008). Household composition and fatal unintentional injuries related to child maltreatment. *Journal of Nursing Scholarship*, 40(1), 91–97.
- St James-Roberts, I. (2012). The origins, prevention and treatment of infant crying and sleeping problems: An evidence-based guide for healthcare professionals and the families they support. London: Routledge.
- Stiffman, M. N., Schnitzer, P. G., Adam, P., Kruse, R. L., & Ewigman, B. G. (2002). Household composition and risk of fatal child maltreatment. *Pediatrics*, 109(4), 615–621.
- Substance Abuse and Mental Health Services Admin. (SAMHSA), & US Dept of Health and Human Services. (1999). Blending Perspectives and Building Common Ground: A Report to Congress on Substance Abuse and Child Protection.

Preventing Severe and Fatal Child Maltreatment: Making the Case for the Expanded Use and Integration of Data

Emily Putnam-Hornstein

University of Southern California

Joanne N. Wood

Children's Hospital of Philadelphia

John Fluke

University of Colorado Denver

Amanda Yoshioka-Maxwell

University of Southern California

Rachel P. Berger

Children's Hospital of Pittsburgh

In this article we examine risk factors for severe and fatal child maltreatment. These factors emerge from studies based on different data sources, including official child maltreatment data, emergency department and hospitalization data, death certificates, and data from child death review teams. The empirical literature reflects a growing effort to overcome the measurement uncertainties of any one individual data system. After review and reflection upon what is known, we consider how integrating this information can advance efforts to protect children, providing examples where the use and linkage of multiple sources of data may enhance surveillance, improve front-end decisionmaking, and support cost-effective research and evaluation.

In 2011, an estimated 1,570 children in the United States died as a result of abuse or neglect (U.S. Department of Health and Human Services [DHHS], 2012). An additional 6.2 million children were referred to child protective services (CPS) as alleged victims of abuse or neglect. Among referred children, 3 million were included in a CPS investigation and roughly 681,000 were determined to have been maltreated. More than three quarters of maltreated children were neglected, 17.6% were physically abused, and 9.1% were sexually abused. Many children experienced multiple forms of maltreatment (DHHS, 2012).

These estimates were derived from the National Child Abuse and Neglect Data System (NCANDS), the official U.S. source of child maltreatment data. The annual NCANDS report provides information about cases of child maltreatment reported to and investigated by CPS; yet estimates from this data system almost certainly understate the public health burden and number of children affected by abuse and neglect (Gilbert, et al., 2009; Sedlak et al., 2010). For example, NCANDS data indicated 2.1 maltreatment deaths occurred per 100,000 children (DHHS, 2012), yet half of states only reported data on maltreatment fatalities for children who were already known to CPS agencies prior to their death (U.S. Government Accountability Office, 2011). In Pennsylvania, one of 51 states and territories that contribute data to NCANDS, a maltreatment fatality (or any other abuse) can only be substantiated if there is a clearly identified perpetrator. Therefore, in Pennsylvania a child can be fatally maltreated or seriously injured from abuse, but if the perpetrator is unknown, the case is not substantiated or reported to NCANDS (Joint State Government Commission, 2012).

The under-ascertainment of nonfatal and fatal child maltreatment is not unique to NCANDS; emergency department and hospitalization records have also been shown to capture only a fraction of all medical encounters arising from maltreatment. Even among children who receive medical attention as a result of maltreatment—a small subset of all abused children—failure of medical professionals to recognize and diagnose abuse, as well as failure of coders to assign appropriate

diagnosis codes have contributed to the undercounting of abuse in medical data (Hooft, Ronda, Schaeffer, Asnes, & Leventhal, 2013; Jenny, Hymel, Ritzen, Reinert, & Hay, 1999; Schnitzer, Slusher, Kruse, & Tarleton, 2011; Scott, Tonmyr, Fraser, Walker & McKenzie, 2009; Somji, Plint, McGahern, Al-Saleh, & Boutis, 2011).

Death certificates, the official record of death in the United States, have also been shown to dramatically underestimate fatalities from maltreatment, as more than 50% of deaths from abuse and neglect may be miscoded on death records (Crume, DiGuseppi, Byers, Sirotnak, & Garrett, 2002; Ewigman, Kivlahan, & Land, 1993; Herman-Giddens et al., 1999; McClain, Sacks, Froehlke, & Ewigman, 1993). Even child death review teams (CDRTs)—multi-agency entities charged with systematically compiling data about child deaths—have been found to underestimate the number of deaths attributable to maltreatment (Palusci, Wirtz, & Covington, 2010; Schnitzer et al., 2008).

Why does accurately identifying and counting severe and fatal cases of maltreatment matter? It is a classic axiom that one must be able to measure what one ultimately hopes to understand, manage, and change. Local variations in perspectives regarding parental behaviors that fall along a spectrum of culturally, economically, and historically determined severity, adequacy, and appropriateness may influence whether or not a case involving minimal physical harm to the child is considered maltreatment or not. Severe and fatal maltreatment offer tragic yet concrete instances of child harm that are less likely to fall within the spectrum of parenting behavior perceived as acceptable by any sector of society. Yet as the literature demonstrates, even here we are hindered by measurement issues.

Maltreatment injuries requiring medical intervention—fractures, burns, brain injury, malnutrition—or maltreatment that results in death, represent a minority of all maltreatment cases. Yet, the incidence of these events may provide the most objective measure of a community's broader success in protecting children (Gilbert et al., 2012; Putnam-Hornstein, 2012). Although our capacity to adequately enumerate the occurrence of maltreatment is currently

limited, developing standard definitions and more complete measurement are attainable goals (Slep & Heyman, 2006). And, if the risk factors for these more tangible forms of severe harm are the same as those for less visible victimization, improvements in the ascertainment of these severe forms of abuse and a better understanding of their antecedent risk factors may advance control and prevention of a broader range of maltreatment.

In this article, we provide a brief overview of risk factors for severe and fatal maltreatment identified from studies based on official maltreatment data, emergency department and hospitalization records, death certificates, and CDRT findings. This body of research reflects a growing effort to reduce the measurement uncertainties of relying solely on CPS data through the use of alternative and sometimes integrated sources of information for population-based maltreatment surveillance. Although the risk factors that emerge across sources are strikingly consistent, these factors are also based on a body of literature dominated by retrospective studies. As such, knowledge of etiological factors and their relative significance is still developing. With these limitations in mind, we reflect upon what is known and the need for additional research. Our recommendations center on what we consider to be “low-hanging fruit”—opportunities we believe hold the greatest potential for understanding antecedent risk factors, improving front-end decisionmaking, and targeting services—thereby reducing the incidence of severe and fatal maltreatment.

Risk Factors for Severe and Fatal Child Maltreatment

Given their physical vulnerability, young children face the greatest risk of severe and fatal maltreatment (DHHS, 2012). Studies indicate that 80% to 90% of maltreatment fatality victims are younger than 4 years of age (Crume et al., 2002; McClain et al., 1993; DHHS, 2012). As with child fatalities, the youngest children—those under age 4—comprise the largest share (34%) of substantiated cases of maltreatment (DHSS, 2012). The risk of severe and fatal injuries is particularly acute during the first year of life; children under 1 year

of age have the highest rate of substantiated maltreatment (21.2 per 1,000 children) and account for 12.5% of all victims of child abuse (DHHS, 2012).

Several other child characteristics have emerged as significant risk factors. In general, male children are overrepresented among victims of severe and fatal maltreatment (Leventhal, Thomas, Rosenfield, & Markowitz, 1993; Ross, Abel, & Radisch, 2009). Compromised child health—frequently operationalized in the maltreatment literature as low birth weight, disability, premature birth, or other known medical risk—has also emerged as a risk factor for both severe and fatal maltreatment (Brenner, Overpeck, Trumble, DerSimonian, & Berendes, 1999; Jonson-Reid, Chance, & Drake, 2007).

The socioeconomic conditions of both family and community have been strongly linked to risk of severe and fatal maltreatment. Poverty has consistently been identified as a risk factor for severe and fatal maltreatment (Leventhal, Martin, & Gaither, 2012; Putnam-Hornstein, 2011), although it is unknown whether poverty directly increases a child's risk or is merely symptomatic of other conditions associated with heightened rates of maltreatment (e.g., parental substance abuse or mental illness). Changes in broader macroeconomic conditions have also emerged as possible correlates of hospitalizations for child abuse (Berger et al., 2011; Wood et al., 2012). Race/ethnicity has been closely tied to both socioeconomic status and child maltreatment risk. Just as Black and Native American children are overrepresented among children officially reported for nonfatal maltreatment, these children also face an increased risk of severe and fatal maltreatment (Brenner et al., 1999; Herman-Giddens et al., 1999; Leventhal & Gaither, 2012; Overpeck, Brenner, Trumble, Trifiletti, & Berendes, 1998).

Young maternal age has also emerged as a risk factor (Brenner et al., 1999; Overpeck et al., 1998). One study found that the risk of fatal maltreatment among infants born to mothers younger than 19 with less than 12 years of education was 6.8 times the risk among infants whose mothers had at least 16 years of education (Overpeck et al., 1998). The risk of abuse has also been documented as higher

among second and subsequent children relative to firstborns (Parrish & Gessner, 2010; Putnam-Hornstein, 2011).

Finally, children of single or unmarried mothers have been consistently overrepresented among victims of severe and fatal maltreatment (Overpeck et al., 1998; Parrish & Gessner, 2010; Schnitzer & Ewigman, 2005). Research, however, indicates that it may not be the mother's single parent status that heightens a child's risk, but rather that her single status increases the likelihood that an unrelated adult male resides in the home (Stiffman, Schnitzer, Adam, Kruse, & Ewigman, 2002). One study found that young children living in a home with an unrelated male were nearly 50 times more likely to die from abuse than children living with two biological parents (Schnitzer & Ewigman, 2005).

The Potential for Using and Integrating Multiple Sources of Data

Although every incident of child maltreatment is tragic and consequential, there is no more visible and attention-generating manifestation of harm than when that maltreatment proves fatal. Public outcry is typically quick, intense, and especially reactive when the victim had been previously referred to CPS. The perception in these cases is that the system responsible for responding to child abuse and neglect was informed that the child was at risk but failed to protect the child from harm. Yet, CPS is rarely the only responsible party, a reality that emerges only after information is assembled across agencies.

Recent estimates suggest that roughly one of every three severe or fatal maltreatment victims had been previously referred to CPS (Damashek & Bonner, 2010; Krous et al., 2006; McKenzie & Scott, 2012; Putnam-Hornstein, 2011), meaning a majority of victims had no previous contact with CPS. A limitation of these estimates is that they do not take into account the fact that in many cases, there were previous referrals to CPS for children in the same family as the child who was severely or fatally maltreated (Putnam-Hornstein, 2011). And while the majority of children who are victims of severe or fatal

abuse may not have been known to CPS, these children and their families almost certainly interacted with health care providers at and shortly after birth—the developmental period in which rates of severe and fatal maltreatment are highest, and during which interactions with nonmedical mandated reporters (e.g. schools) are limited. This highlights why surveillance and prevention efforts must be broader than one system and should more effectively incorporate health care systems. To this end, we believe there is tremendous unrealized potential in the use and integration of existing data systems, including health care data, to improve the protection of children.

During the last two decades, technological advances have greatly expanded the availability and quality of data, as well as the ease with which records can be integrated across systems. This progress allows us to outline how administrative data can be used to generate information toward better understanding and greater prevention of nonfatal and fatal child maltreatment through: (1) enhanced surveillance, (2) improved decisionmaking, and (3) cost-effective prospective research and evaluation.

Enhanced surveillance. Investment in the expanded use and integration of administrative data across multiple systems will significantly enhance capacity for the surveillance of nonfatal and fatal maltreatment. Surveillance is defined as the ongoing collection, analysis, and interpretation of data for use in the planning, implementation, and interpretation of population health (Thacker & Berkelman, 1988). Because there is no complete single source of data that documents how many children are victims of abuse or neglect, the integration of multiple sources of data is needed. In the context of child maltreatment, improved surveillance provides more accurate incidence and prevalence estimates, supporting the identification of high-risk population subgroups. By recognizing and tracking changes in factors associated with increased rates of child abuse and neglect, we can identify groups of individuals, as well as communities, with heightened risk of child abuse. This knowledge can be used to develop better prevention programs and allocate resources in a way that is more responsive to the needs of vulnerable groups.

The strength of relying on multiple data sources to overcome underascertainment of maltreatment and improve surveillance has emerged in several recent analyses. In one multisite study, hospitalization data were used by Berger and colleagues (2011) to evaluate trends in the rate of abusive head trauma; they found that during the most recent economic recession, there was an increase in the rate of abusive head trauma across 74 counties. Wood and colleagues (2012) identified a similar relationship between the rate of hospital admissions for child physical abuse and macroeconomic conditions during the recent recession, specifically local mortgage foreclosure activities. The rate of substantiated physical abuse reported by NCANDS during this same period, however, decreased significantly (DHHS, 2009), demonstrating the marked variations among data sources.

There are a number of reasons for these differences between official maltreatment data (i.e., NCANDS) and hospitalization data. Medical diagnoses of physical abuse differ from CPS definitions of abuse. More severe types of abuse leading to hospitalizations may align with macroeconomic conditions, whereas less severe types of abuse may correlate more closely with other risk factors. Trends in one or both data sources may be artifacts of definitional changes or improved ascertainment. CPS may have lacked the workforce to investigate and substantiate what may have been a real increase in physical abuse. Yet, if official maltreatment data and hospitalization data capture different maltreatment dynamics, a more complete understanding will be achieved when multiple sources of data are used to measure child safety.

Improved decisionmaking. The integration of CPS data with medical records and data from other social service sectors also has the potential to improve the consistency and accuracy of CPS decisionmaking. Although the role of CPS is commonly conceptualized as that of a social service provider, its primary function is decisionmaking (Morton & Holder, 1997). CPS agencies embody a decisionmaking continuum (Baumann, Dalgleish, Fluke, & Kern, 2011; Fluke, Baumann, Dalgleish, & Kern, 2013) that filters children and families by: (1) deciding whether a report is consistent with the conditions that

constitute maltreatment and requires investigation or assessment; (2) determining whether services are needed or required; and (3) assessing what type of service is needed or required, including possible out-of-home placement.

Evidence suggests that CPS decisionmaking is a highly imperfect science, falling in a class referred to as “decisionmaking under uncertainty,” where complex conditions prevent decisionmakers from fully understanding the likely consequences of their determinations. Errors in decisionmaking can be either in the form of *taking action when actions are not needed* (false positives) or *not taking action when action is needed* (false negatives). While false positives are likely more common, an error of not taking action or a false negative (e.g., not removing a child who is at risk) is what undoubtedly receives much more public reaction as the consequences are often clearly visible and significant. Unfortunately, not only are both types of errors unavoidable given the incomplete state of our understanding of risk and severity of harm, but in the context of relatively low base rate events such as severe or fatal maltreatment, it is likely that there would need to be many false positives (e.g., children removed from a home in which they would not have been re-abused) in order to significantly decrease the false negatives.

For CPS, as with other systems in which service decisions are made, decisionmaking consists of an assessment component (i.e., determining the level of concern) and an action component (i.e., determining what to do about that concern) (Dalglish, 1988). Determination of the level of concern is generally tied to factors associated with the child and family (e.g., risks), whereas the action component is a function of decisionmaker action thresholds influenced by decisionmaker experience, organizational factors, and factors external to the service delivery system, collectively referred to as the Decisionmaking Ecology (Baumann et al., 2011). Correctly assessing the likelihood that a given child will be the victim of abuse or neglect at some future time—and creating tools that allow for a more sophisticated discrimination of risk—would enable scarce resources to be more strategically targeted. It would mean that evidence-based programs of varying intensity could

be offered to families (Pecora et al., 2012), more efficiently matching service levels to maltreatment risk.

What might such a tool look like? New Zealand is exploring the adoption of a computerized algorithm for stratifying children based on likelihood of future maltreatment (Vaithianathan, Maloney, Putnam-Hornstein, & Jiang, in press). The New Zealand model is based on integrated public benefit and child maltreatment data. These data have allowed researchers to draw from more than 200 data elements concerning children, siblings, and adults in the home to develop a model that generates a risk score capturing a child's future probability of being maltreated. This approach is unique because: (1) the model has been built from data gathered from multiple data systems; (2) if implemented, the tool would be automated rather than operator driven (i.e., computer-generated risk scores), reducing both the burden on workers and subjectivity bias; (3) this approach would allow new risk scores to be generated for children as new information is entered into the integrated system, with the model run on a weekly or even daily basis to allow more dynamic assessments of risk; and (4) risk scores would be used to identify children at high risk of maltreatment prior to any alleged abuse or neglect or CPS involvement. In other words, this model would be used to match the highest-risk children to maltreatment prevention services. Although implementation has yet to occur, findings indicate that available data capture more than 83% of children prior to a report of maltreatment, and 48% of children in the highest risk decile (as scored by the risk model) are maltreated by age 5 (Vaithianathan et al., in press).

Cost-effective prospective research and evaluation. The integration of data sources also supports cost-effective research agendas that allow for a prospective examination of risk factors and evaluations of prevention and intervention programs. Each year, government and private service delivery systems invest significant resources in early intervention and maltreatment prevention activities, including the collection of data. These efforts have recently increased as illustrated by the expansion of resources under the Patient Protection and Affordable Care Act to provide home visiting programs, a primary

prevention strategy. Yet, in most cases, the data collected by these agencies to assess the effectiveness of their interventions reflect the reach of a single agency, even though children and families are frequently served by multiple agencies and investments by one agency may be realized by a second. For example, the U.S. Department of Health and Human Services (1999) estimated that between one third and two thirds of child maltreatment victims are affected by parental substance abuse. Nevertheless, in most states, CPS and substance-abuse treatment data are maintained in separate data systems, preventing even basic point prevalence estimates of dually involved clients.

Fortunately, integrated data can be used to conduct relatively low-cost, prospective (and often population-based) maltreatment research and evaluation. For example, birth, CPS, and death records have been linked in California and used to track more than 4.3 million children over time (Putnam-Hornstein, Webster, Needell, & Magruder, 2011; Putnam-Hornstein, 2011). By linking these data sources, entire birth cohorts of children have been prospectively followed, allowing an identification of risk factors present at birth, the subgroup of children referred to CPS for nonfatal maltreatment, and deaths occurring over time. While generating a study in which millions of children are followed and actively tracked over time would be costly and inefficient, integrated data systems can leverage essential information available in existing data sources.

Findings from use of integrated data sources have: (1) helped document the public health burden of child maltreatment; (2) highlighted the potential for using universally collected data at birth to target high-risk populations for services; and (3) allowed for population-based examinations of child fatalities following involvement with CPS. In terms of public health, these linked data document that annual estimates of the number of children reported for maltreatment, substantiated as victims, or entering foster care understate the number of children who will experience these events over the course of childhood. For example, in California less than 5% of children are referred to CPS as victims of maltreatment annually, although nearly three times that number (15%) have been referred

for possible maltreatment by age 5. Point-in-time (or cross-sectional) estimates give the impression that only a small share of children are maltreated or in the foster care system, whereas population-based and longitudinal data document the cumulative risk of CPS involvement over the course of childhood and provide a better measure of the resulting public health burden.

Integrated data also demonstrate that data which is already collected on the birth certificate can be used to identify children at greatest risk of maltreatment. It is possible to identify roughly 50% of children who will be reported to CPS before the age of five from a relatively small subset of all births (15%) (Putnam-Hornstein & Needell, 2011). These data suggest that it is possible to move strategically upstream in our prevention efforts, creating services and supports that are tailored and targeted to those families at greatest risk of child maltreatment during the peak period of a child's developmental and physical vulnerability, when child maltreatment fatalities are highest.

Perhaps most importantly, population-based data indicate that a report to CPS for maltreatment is not a random event and is not simply a function of poverty or the result of racial/ethnic surveillance bias. After adjusting for other risk factors including maternal age, race/ethnicity, paternity establishment, children's health risks, gender, birth order, and birth payment method, children reported for maltreatment were observed to die from abuse at a rate 5.9 times greater than children who had not been reported (Putnam-Hornstein, 2011). In fact, a previous allegation of maltreatment was the single strongest predictor of death due to child abuse and was a much stronger risk factor than poverty or any other variables examined. While the National Incidence Studies (NIS) (Sedlak et al., 2010) and other sources of surveillance data suggest that the CPS system has contact with only a subset of maltreated children, the heightened rate of abuse deaths among children previously referred to CPS leave little doubt that those children who are known to CPS do, in fact, face threats that run far deeper than poverty or sociodemographic factors alone would indicate.

Concluding Thoughts

Evidence suggests a widespread under-ascertainment of both nonfatal and fatal child maltreatment in any one data system, largely due to limitations in the scope of information collected, as well as variations in data source criteria, coding, and diagnostics. Advances in technology, however, now allow the application and integration of multiple data sources to the study and prevention of child maltreatment. In this paper, we discuss and provide examples of how the use of multiple sources of data has the potential to: improve surveillance, support enhanced CPS decisionmaking and the strategic targeting of services, and increase cost-effective and rigorous research and evaluation.

References

- Baumann, D. J., Dalgleish, L., Fluke, J., & Kern, H. (2011). *The decision-making ecology*. Washington, DC: American Humane Association.
- Berger, R. P., Fromkin, J. B., Stutz, H., Makoroff, K., Scribano, P. V., Feldman, K., ... Fabio, A. (2011). Abusive head trauma during a time of increased unemployment: A multicenter analysis. *Pediatrics*, 128, 637–643.
- Brenner, R. A., Overpeck, M. D., Trumble, A. C., DerSimonian, R., & Berendes, H. (1999). Deaths attributable to injuries in infants, United States, 1983–1991. *Pediatrics*, 103, 968–974.
- Crume, T. L., DiGuseppi, C., Byers, T., Sirotinak, A. P., & Garrett, C. J. (2002). Underascertainment of child maltreatment fatalities by death certificates, 1990–1998. *Pediatrics*, 110, e18.
- Dalgleish, L. I. (1988). Decisionmaking in child abuse cases: Applications of social judgment theory and signal detection theory. In B. Brehmer & C.R.B. Joyce (Eds.), *Human judgment: The SJT view* (pp. 317–360). Amsterdam, Netherlands: Elsevier.
- Damashek, A., & Bonner, B. L. (2010). Factors related to sibling removal after a child maltreatment fatality. *Child Abuse & Neglect*, 34, 563–569.

- Ewigman, B., Kivlahan, C., & Land, G. (1993). The Missouri child fatality study: Underreporting of maltreatment fatalities among children younger than five years of age, 1983 through 1986. *Pediatrics*, 91, 330–337.
- Fluke, J., Baumann, D. J., Dalgleish, L., Kern, H. D. (in press). Decisions to protect children: A decision-making ecology. In J. Korbin & R. Krugman (Eds.), *Handbook of child maltreatment*. Amsterdam, Netherlands: Springer.
- Gilbert, R., Fluke, J., O'Donnell, M., Gonzalez-Izquierdo, A., Brownell, M., Gulliver, P., ... Sidebotham, P. (2012). Child maltreatment: Variation in trends and policies in six developed countries. *The Lancet*, 379, 758–772.
- Gilbert, R., Kemp, A., Thoburn, J., Sidebotham, P., Radford, L., Glaser, D., & MacMillan, H. L. (2009). Recognising and responding to child maltreatment. *Lancet*, 373, 167–180. doi:10.1016/S0140-6736(08)61707-9
- Herman-Giddens, M. E., Brown, G., Verbiest, S., Carlson, P. J., Hooten, E. G., Howell, E., & Butts, J. D. (1999). Underascertainment of child abuse mortality in the United States. *Journal of the American Medical Association*, 282, 463–467.
- Hooft, A., Ronda, J., Schaeffer, P., Asnes, A. G., & Leventhal, J. M. (2013). Identification of physical abuse cases in hospitalized children: Accuracy of International Classification of Diseases codes. *Journal of Pediatrics*, 162, 80–85. doi:10.1016/j.jpeds.2012.06.037
- Jenny, C., Hymel, K. P., Ritzen, A., Reinert, S. E., & Hay, T. C. (1999). Analysis of missed cases of abusive head trauma. *Journal of the American Medical Association*, 282, 621–629.
- Joint State Government Commission. (2012). *Child protection in Pennsylvania: Proposed recommendations* (Report of the Task Force on Child Protection). Retrieved from http://jsg.legis.state.pa.us/publications.cfm?JSPU_PUBLN_ID=285.
- Jonson-Reid, M., Chance, T., & Drake, B. (2007). Risk of death among children reported for nonfatal maltreatment. *Child Maltreatment*, 12, 86–95.
- Krous, H. F., Haas, E. A., Manning, J. M., Deeds, A., Silva, P. D., Chadwick, A. E., & Stanley, C. (2006). Child protective services referrals in cases of sudden infant death: A 10-year, population-based analysis in San Diego County, California. *Child Maltreatment*, 11, 247–256.
- Leventhal, J. M., & Gaither, J. R. (2012). Incidence of serious injuries due to physical abuse in the United States: 1997 to 2009. *Pediatrics*, 130, e847–e852.

- Leventhal, J. M., Martin, K. D., & Gaither, J. R. (2012). Using US data to estimate the incidence of serious physical abuse in children. *Pediatrics*, 129, 458–464.
- Leventhal, J. M., Thomas, S. A., Rosenfield, N. S., & Markowitz, R. I. (1993). Fractures in young children: Distinguishing child abuse from unintentional injuries. *American Journal of Diseases of Children*, 147, 87–92.
- McClain, P. W., Sacks, J. J., Froehlke, R. G., & Ewigman, B. G. (1993). Estimates of fatal child abuse and neglect, United States, 1979 through 1988. *Pediatrics*, 91, 338–343.
- McKenzie, K., & Scott, D. A. (2012). Quantity of documentation of maltreatment risk factors in injury-related paediatric hospitalisations. *BMC Public Health*, 12, 563.
- Morton, T. D., & Holder, W. (Eds.). (1997). *Decisionmaking in children's protective services: Advancing the state of the art*. Duluth, GA: Child Welfare Institute. Retrieved from National Resource Center for Child Protective Services website: <http://nrccps.org/documents/1997/pdf/DecisionMakinginCPS.pdf>.
- Overpeck, M. D., Brenner, R. A., Trumble, A. C., Trifiletti, L. B., & Berendes, H. W. (1998). Risk factors for infant homicide in the United States. *New England Journal of Medicine*, 339, 1211–1216.
- Palusci, V. J., Wirtz, S. J., & Covington, T. M. (2010). Using capture-recapture methods to better ascertain the incidence of fatal child maltreatment. *Child Abuse & Neglect*, 34, 396–402.
- Parrish, J. W., & Gessner, B. D. (2010). Infant maltreatment-related mortality in Alaska: Correcting the count and using birth certificates to predict mortality. *Child Abuse & Neglect*, 34, 951–958.
- Pecora, P. J., Sanders, D., Wilson, D., English, D., Puckett, A., & Rudlang-Perman, K. (2012). Addressing common forms of child maltreatment: Evidence-informed interventions and gaps in current knowledge. *Child & Family Social Work*. Advance online publication.
- Putnam-Hornstein, E. (2011). Report of maltreatment as a risk factor for injury death: A prospective birth cohort study. *Child Maltreatment*, 16, 163–174.
- Putnam-Hornstein, E. (2012). Preventable injury deaths: A population-based proxy of child maltreatment risk in California. *Public Health Reports*, 127, 163–172.
- Putnam-Hornstein, E., Webster, D., Needell, B., & Magruder, J. (2011). A public health approach to child maltreatment surveillance: Evidence from a data linkage project in the United States. *Child Abuse Review*, 20, 256–273.

- Ross, A. H., Abel, S. M., & Radisch, D. (2009). Pattern of injury in child fatalities resulting from child abuse. *Forensic Science International*, 188, 99–102.
- Schnitzer, P. G., Covington, T. M., Wirtz, S. J., Verhoek-Ofstedahl, W., & Palusci, V. J. (2008). Public health surveillance of fatal child maltreatment: Analysis of 3 state programs. *American Journal of Public Health*, 98, 296–303.
- Schnitzer, P. G., & Ewigman, B. G. (2005). Child deaths resulting from inflicted injuries: Household risk factors and perpetrator characteristics. *Pediatrics*, 116, e687–e693.
- Schnitzer, P. G., Slusher, P. L., Kruse, R. L., & Tarleton, M. M. (2011). Identification of ICD codes suggestive of child maltreatment. *Child Abuse & Neglect*, 35, 3–17.
- Scott, D., Tonmyr, L., Fraser, J., Walker, S., & McKenzie, K. (2009). The utility and challenges of using ICD codes in child maltreatment research: A review of existing literature. *Child Abuse & Neglect*, 33, 791–808.
- Sedlak, A. J., Mettenburg, J., Basena, M., Petta, I., McPherson, K., Greene, A., & Li, S. (2010). *Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families.
- Shlonsky, A., & Wagner, D. (2005). The next step: Integrating actuarial risk assessment and clinical judgment into an evidence-based practice framework in CPS case management. *Children and Youth Services Review*, 27, 409–427.
- Slep, A. M. S., & Heyman, R. E. (2006). Creating and field-testing child maltreatment definitions: Improving the reliability of substantiation determinations. *Child Maltreatment*, 11, 217–236.
- Somji, Z., Plint, A., McGahern, C., Al-Saleh, A., & Boutis, K. (2011). Diagnostic coding of abuse related fractures at two children's emergency departments. *Child Abuse & Neglect*, 35, 905–914.
- Stiffman, M. N., Schnitzer, P. G., Adam, P., Kruse, R. L., & Ewigman, B. G. (2002). Household composition and risk of fatal child maltreatment. *Pediatrics*, 109, 615–621.
- Thacker, S. B., & Berkelman, R. L. (1988). Public health surveillance in the United States. *Epidemiologic Reviews*, 10, 164–190.
- U.S. Department of Health and Human Services. (1999). *Blending perspectives and building*

common ground: A report to Congress on substance abuse and child protection. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families.

U.S. Department of Health and Human Services. (2009). *Child maltreatment 2008.* Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families. Retrieved from <http://www.acf.hhs.gov/programs/cb/resource/child-maltreatment-2008>.

U.S. Department of Health and Human Services. (2012). *Child maltreatment 2011.* Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families. Retrieved from <http://www.acf.hhs.gov/sites/default/files/cb/cm11.pdf>.

U.S. Government Accountability Office. (2011). *Child maltreatment: Strengthening national data on child fatalities could aid in prevention* (Report No. GAO-11-599). Washington, DC: Author. Retrieved from <http://www.gao.gov/assets/330/320774.pdf>

Vaithianathan, R., Maloney, T., Putnam-Hornstein, E., & Jiang, N. (in press). Children in the public benefit system at risk of maltreatment: Identification via predictive modeling. *American Journal of Preventive Medicine*.

Wood, J. N., Medina, S. P., Feudtner, C., Luan, X., Localio, R., Fieldston, E. S., & Rubin, D. M. (2012). Local macroeconomic trends and hospital admissions for child abuse, 2000–2009. *Pediatrics*, 130, e358–e364.

Advancing Public Health Surveillance to Estimate Child Maltreatment Fatalities: Review and Recommendations

Patricia G. Schnitzer
University of Missouri

Sam P. Gulino
*Medical Examiner's Office
Philadelphia Department of
Public Health*

Ying-Ying T. Yuan
*Walter R McDonald &
Associates, Inc.*

Fatal child maltreatment is a compelling problem in the United States. National estimates of fatal child maltreatment, based largely on child welfare data, have fluctuated around 1,500 deaths annually for the past ten years. However, the limitations of child welfare and other mortality data to accurately enumerate fatal child maltreatment are well documented. As a result of these limitations, the true magnitude of fatal child maltreatment remains unknown. Public health surveillance has been proposed as a mechanism

to improve estimation of fatal child maltreatment, as well as to collect and analyze relevant risk factor data for the ultimate goal of developing prevention strategies. This paper describes public health surveillance efforts undertaken to improve estimation of fatal child maltreatment, and presents the unique challenges of identifying fatal child neglect. The strengths and limitations of existing sources of child maltreatment fatality data are reviewed and broad recommendations for strategies to advance public health surveillance of fatal child maltreatment are presented.

Fatal child maltreatment (CM) is a compelling problem in the United States. Compelling, not only for the obvious reason—that children are killed by their parent or assigned caregiver and most of these children are less than 5 years old—but also because the true magnitude of this problem remains unknown. The underascertainment of fatal child maltreatment has been consistently documented, not only in child welfare data, but in other mortality data as well (Paulozzi & Sells, 2002; Overpeck, Brenner, Trumble, Trifiletti, & Berendes, 1998; Ewigman, Kivlahan, & Land, 1993; Herman-Giddens et al., 1999; Crume, DiGuseppi, Byers, Sirotinak, & Garrett, 2002; Schnitzer, Covington, Wirtz, Verhoek-Oftedahl, & Palusci, 2008).

The federal estimate of fatal CM in the United States (US), based largely on child welfare data, fluctuates around 1,500 annually, with estimates ranging between 1,420 and 1,740 for the period 2001-2011 (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2012). Although the actual number of CM deaths each year in the United States is not known, McClain and colleagues applied the findings of a Missouri study of fatal CM to death certificate data for the years 1979 through 1988 and reported an estimate of up to 2,022 CM deaths per year for the period (McClain, Sacks, Froehlke, & Ewigman, 1993). More recently, a special effort to identify neglect-related deaths among children less than 10 years old in Michigan documented a 75% increase in their estimate of fatal CM, from 110 to 192 over a two-year period (Schnitzer et al., 2008). Applying this 75% increase to reported national estimates would indicate that close to 3,000 children die as a result of maltreatment each year in the United States.

In 2011, the Government Accountability Office (GAO) released a report documenting the undercount of CM nationally (United States Government Accountability Office, 2011). This report calls for a national focus on understanding the magnitude of fatal CM by finding solutions for improving the count and analyzing additional information on the circumstances of CM deaths. Improving the ability to more accurately estimate and understand the circumstances of

these deaths are necessary steps not only for monitoring trends, but for developing and evaluating prevention strategies.

The Centers for Disease Control and Prevention (CDC) is the federal agency focused on disease and injury prevention. Because of the broad scope of CM and the serious physical, mental and social consequences, a public health response to the prevention of CM has been a priority area for the CDC for over ten years (Hammond, 2003; Whitaker, Lutzker, & Shelley, 2005). In this paper, we describe public health surveillance efforts undertaken to improve estimation of fatal CM and the challenges unique to enumerating fatal child neglect. Then we review the strengths and limitations of existing sources of CM fatality data—data from child welfare agencies, death certificates, and child death review programs. Finally, broad recommendations for strategies to advance public health surveillance of fatal CM are presented.

Public Health Surveillance of Fatal Child Maltreatment

Public health surveillance is defined as the ongoing systematic collection, analysis, and interpretation of health data essential to the planning, implementation, and evaluation of public health practice (Thacker, 1994). Use of the data for prevention is a key component of public health surveillance systems.

The CDC's National Center for Injury Prevention and Control (NCIPC) has supported a number of projects focused on surveillance of CM over the past 10 years (Schnitzer, Slusher, & Van Tuinen, 2004; Whitaker et al., 2005; Schnitzer et al., 2008; Smith et al., 2011; Gibbs et al., 2013). These surveillance projects demonstrated that case ascertainment is improved when multiple sources are combined. The surveillance projects in California, Michigan, and Rhode Island focused on fatal CM; they combined data from child welfare agencies, death certificates, law enforcement data on homicides reported to the Federal Bureau of Investigation Uniform Crime Reports (FBI-UCR) program, and multidisciplinary Child Death Review (CDR) programs. The findings from these states were consistent with earlier

studies and document that child welfare data identify between 24% and 65% of CM deaths (Ewigman et al., 1993; Schnitzer et al., 2008), death certificates identify 10%–51% (Ewigman et al., 1993; Crume et al., 2002; Schnitzer et al., 2008), FBI-UCR 15%–56% (Ewigman et al., 1993; Schnitzer et al., 2008), and CDR identified 32%–98% (Schnitzer et al., 2008). Of note, only in California did the FBI-UCR data identify any unique CM fatalities—that is, a CM death not also identified by one of the other three data sources. Further analyses of the fatal CM surveillance data from California, Michigan, and Rhode Island found that combining CDR data with one additional source improved case ascertainment substantially (Schnitzer et al., 2008). Based on the findings from several CDC supported CM surveillance projects, the study authors suggested that CDR data may be a promising contribution to public health surveillance of fatal CM, largely due to the multidisciplinary nature of the CDR process and the level of detail on the circumstances of death shared during reviews (Schnitzer et al., 2008; Smith et al., 2011; Gibbs et al., 2013). It is important to note that to date, no efforts have been made to conduct public health surveillance of fatal CM at the national level.

Defining Fatal Child Maltreatment and the Unique Challenge of Estimating Fatal Neglect

The term “child maltreatment” encompasses a broad spectrum of caretaker behaviors including physical abuse, sexual abuse, and various forms of neglect. However, the majority of fatal CM is due to either physical abuse or specific types of neglect (inadequate supervision, lack of nourishment, and lack of medical care). Although definitions of CM vary across states and agencies within states, conceptually, these definitions, adapted from the Child Abuse Prevention and Treatment Act (CAPTA) definition, are very similar. Consequently, there tends to be widespread consensus across agencies and professionals on what actions constitute fatal physical abuse.

Classifying fatal neglect, however, is a complex problem that must be addressed in order to improve surveillance processes. Each of the

agencies coming into contact with a child who has died may apply a different operational definition when determining if the death was neglect-related. These operational definitions are specific to each agency's function—influenced by the laws, regulations, and standards specific to each agency—and incorporate each agency's perception of societal norms regarding acceptable parenting practices. In fact, agency-specific operational definitions of neglect may be in direct conflict with one another. For example, a death certified by a medical examiner or coroner as an accident may be prosecuted if the District Attorney feels the actions of the parent showed reckless disregard for the child's welfare. Conversely, a death determined to be neglect-related by a child welfare agency may fail to meet the legal threshold for criminal prosecution.

The challenge of classifying neglect-related child deaths was documented in a study of multidisciplinary CDR team members who were asked to classify scenarios describing the circumstances of fatal unintentional injuries as neglect-related, or not (Schnitzer, Covington, & Kruse, 2011). This study found that several attributes consistently influenced CDR team members' classification of a death as neglect-related; the attributes included: adult supervision, failure to use safety devices, chronicity (a pattern of previous neglectful behavior), and intent (a caregiver knowingly placing a child in a potentially hazardous situation). One striking finding was the wide variation in judgment and opinion across respondents when reviewing the same scenario describing the circumstances of death, emphasizing the challenge in reaching consensus on classification of fatal neglect.

The Michigan effort, mentioned earlier, to better quantify neglect-related unintentional injury deaths resulted in the addition of 82 neglect-related deaths, a 75% increase in fatal CM identified during the two-year surveillance period. Additional analyses of these Michigan CM surveillance data, using capture-recapture methods to estimate CM, documented that they were fairly accurate for estimating child physical abuse deaths, but not neglect-related deaths. The authors suggested this was due to lack of uniform definitions and identification of neglect within

the data sources examined (CDR, child welfare, death certificates, FBI-UCR) (Palusci, Wirtz, & Covington, 2010). Clearly, even population-based public health surveillance will not result in a more accurate estimate of fatal CM without the development of an operational definition of child neglect that is acceptable to multiple agencies, organizations and professions, and consistently applied across jurisdictions.

The CDC's development of definitions of CM intended for use in public health surveillance was an attempt to craft clear operational definitions for fatal CM, uncoupled from agency-specific mandates (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008). After a lengthy process of obtaining input from CM experts representing multiple disciplines, the CDC published definitions of CM and associated terms, for the purpose of improving consistency in the collection of public health surveillance data on CM.

Once developed, the CDC funded three states (California, Michigan, and Oregon) to implement public health surveillance for CM, using the definitions for case ascertainment (Gibbs et al., 2013; Smith et al., 2011). Within each state, multidisciplinary CDR teams used the information gathered in the course of death investigations by various agencies and applied the CDC definitions to their data. In the evaluation of these surveillance projects, the multidisciplinary team members confirmed that although some deaths that meet the CDC definition of CM would not be classified as CM by their agency, having clearly stated operational definitions facilitated reaching consensus on CM classification (Gibbs et al., 2013). These findings lend support for the notion that development of an operational definition of fatal child neglect that is applied uniformly across disciplines and agencies is possible.

Sources of Data on Child Maltreatment and Related Fatalities

In this section, we briefly describe three key sources of data on CM fatalities, and their relative strengths and limitations for estimating CM deaths (see Table 1).

Table 1
Summary of Key Data Sources for Estimating Fatal Child Maltreatment

Source of Data	Strengths	Limitations
<u>National Child Abuse and Neglect Data System (NCANDS)</u>		
Children known to child welfare agencies	Child maltreatment determined by state agency	Not all maltreatment deaths reported to or identified by child welfare agencies
Aggregates data from all reporting states	Includes victim, perpetrator, and service variables	Lack detail on circumstances of death
Includes characteristics of child, caregiver risk factors, type of maltreatment, services provided	Wide dissemination of data by the Children's Bureau annually	
	Implementing changes to improve estimation of fatal child maltreatment	
<u>Death Certificates</u>		
Completion and submission of death certificate required for all deaths in US	Population-based data	Identification and documentation of child maltreatment dependent on adequate death investigation and proper certification of death
State vital statistics registrar offices submit all death certificate data to National Center for Health Statistics in standard, electronic format	Standard form with required data elements used by all states	Inconsistent criteria for education and training requirements of death certifiers across states – some states require Medical Examiners; some use Coroners; some use both
Death data aggregated from all states	Technical assistance provided to facilitate accurate completion and recording across states	Lack of universal standards for death investigation and certification
		Little information on circumstances of death or potential risk factors
		Potential errors in vital statistics coding

Table 1 (Cont.)

Summary of Key Data Sources for Estimating Fatal Child Maltreatment

Source of Data	Strengths	Limitations
	<u>Child Death Review (CDR)</u>	
Multidisciplinary teams review circumstances of child deaths	Standard data elements used for data collection and analysis by over 40 states	Variation in CDR programs across states
Detailed data on circumstances of death, including supervision at time of death, presence of risk factors, findings from death investigation, determination of whether maltreatment caused or contributed to the death	National Center for the Review and Prevention of Child Deaths (NCRPCD) maintains the data	Not all states review all child deaths
Goal is to better understand circumstances of deaths and use data for prevention	NCRPCD provides training and technical assistance for data collection and entry, conducting reviews, and using data for prevention	Not all states contribute to the Case Reporting System
		Child maltreatment definitions not applied consistently across CDR programs/teams

The National Child Abuse and Neglect Data System

The National Child Abuse and Neglect Data System (NCANDS), established in response to a CAPTA mandate (Public Law 93-247), is the primary source of national data on children known to state child protective services/child welfare agencies (DHHS. Each year, the Department of Health and Human Services publishes a report summarizing the most recent analyses of NCANDS data; one chapter of this report is devoted to data on maltreatment fatalities (DHHS, Administration on Children, Youth and Families, 2012). Fatality data may be reported to NCANDS—either as case-level data or as aggregate data. The case-level file includes data on the characteristics of the child (age, sex, race), relationship to perpetrator, prior reports, caregiver risk factors (e.g., drug abuse), type of maltreatment alleged, and services provided. In an effort to include deaths when child-specific case level data are not available, NCANDS also permits states to submit aggregate data. The aggregate child fatality data are simply

a count of CM deaths and may include deaths identified by sources other than the state child welfare agency. Each year, some states report only case-level or aggregate data, some states report both, some states do not report any CM deaths and some states are unable to report their data in time for publication in the annual report, but may update their files in subsequent years.

NCANDS data have several advantages in that they reflect official reports of child maltreatment determined by the state child welfare agency and include a range of victim, perpetrator and service variables (Wulczyn, 2009). NCANDS has implemented a number of changes in recent years with the goal of improving estimation of fatal CM.

The data also have a number of important limitations (Putnam-Hornstein, Webster, Needell, & Magruder, 2011). Most importantly, not all deaths that might be attributed to CM are reported to or identified as such by child welfare agencies. There are a number of reasons a CM death might not be identified by child welfare agencies at the state level or reported to NCANDS. These include reporting laws, evidentiary standards, CM definitions, identification of a death as CM, and agency resources for investigations—all factors that vary across states. In an effort to offset these programmatic variations across states, NCANDS encourages state child welfare agencies to submit CM fatality data from other sources such as medical examiner offices, state vital statistics offices, child death review teams, and law enforcement (DHHS, Administration on Children, Youth and Families, 2012). Lack of detail on the circumstances of the child's death further limit use of NCANDS data for identifying a broad range of risk factors necessary for developing prevention strategies, activities beyond the scope of the current NCANDS mandate.

Vital Statistics / Death Certificates

Using death certificate data to enumerate fatal CM might appear to be an appealing option for generating population-based estimates of fatal CM in the United States. There are many potential advantages to using death certificate data for this purpose, including the standard forms and technical assistance for death certifiers that are

designed to facilitate standard completion and recording processes across states. In practice, however, the use of death certificate data to accurately enumerate deaths due to CM is entirely dependent upon the proper investigation and certification of child maltreatment fatalities by coroners and medical examiners.

The distinction between coroners and medical examiners is that medical examiners are physicians specifically trained in forensic pathology, appointed to their position; whereas coroners are elected officials who need not be physicians nor have any training in death investigation. While some states require coroners to receive basic education, this is not uniformly so, nor does it necessarily include comprehensive training around child death investigation. In contrast, forensic pathology consists of training in the technical aspects of death investigation and the medical identification of disease and injury through examination of the body during autopsy; forensic pathologists are trained to interpret autopsy findings in light of investigative information.

In the United States, a jurisdiction's death investigation system is established by state law. Some states have county medical examiners or a centralized or statewide medical examiner system. The majority of states have a system of county coroners or a mixed system with medical examiners in one or a few densely-populated urban areas and coroners in the remainder of the counties (Hickman, Hughes, Strom, & Roper-Miller, 2007). As a result, roughly 70% of the death investigation offices in the United States are coroner's offices (National Research Council, 2009).

Several factors, including the variation in death investigation systems, lack of standard death certification, and the widespread persistence of the coroner system, give rise to significant variation in the investigation and certification of child deaths. Although there are attempts to standardize the process for completion of death certificates, no universally accepted standards for death certification exist. U.S. death certificates continue to be submitted with cause of death statements that contain unnecessary information or that, conversely, omit the underlying cause(s) of death. It is widely recognized that deaths

due to CM are not clearly recorded as such. In fact, death certificate data identify at most only one-half of all CM deaths when compared to other sources of CM data at the state level (Ewigman et al., 1993; Crume et al., 2002), and the identification of fatal neglect in death certificate data is particularly problematic (Herman-Giddens et al., 1999; Palusci et al., 2010). For example, failure to have appropriate perimeter fencing around a home swimming pool and failure to vigilantly supervise a toddler in this home environment are considered by many professionals to meet criteria for neglectful (acts of omission) parenting. Nonetheless, many medical examiners and coroners would certify the drowning death of a toddler under such circumstances as an accident, without mention of neglect or maltreatment.

Child Death Review

Multidisciplinary CDR teams collect detailed information on the circumstances of death, making CDR data unique among existing sources of mortality data for identifying a broad range of risk factors and potential prevention strategies. Before 2005, there was little consistency in the data collected by CDR programs in different states. However, since 2005, the National Center for the Review and Prevention of Child Deaths (NCRPCD) has maintained a case reporting system it developed to facilitate consistent collection and reporting of CDR program data (Covington, 2011); currently, more than 40 states use this system (Theresa Covington, Director NCRPCD, personal communication). The NCDR-CRS contains detailed information on the circumstances of child deaths, including supervision at the time of death, presence of risk factors, findings from the death investigation, and the CDR team's determination of whether CM caused or contributed to the death.

The NCRPCD provides training and technical assistance for collection of data and use of the NCDR-CRS, as well as for conducting reviews and using the data for prevention. In spite of this support provided by the NCRPCD, there is still variation in CDR program components across states (Webster, Schnitzer, Jenny, Ewigman, & Alario, 2003; National Center for Child Death Review, 2011).

Furthermore, not all state CDR programs review all child deaths, and in many cases, operational definitions for CM are not explicitly stated or applied consistently across CDR teams (Covington, 2011), particularly for neglect-related deaths (Schnitzer et al., 2011).

Summary

In this section, we have briefly reviewed data from NCANDS, death certificates, and child death review programs. For each of these sources, data are compiled initially at the state level. Only NCANDS aggregates data from all states for the purpose of estimating child maltreatment fatalities in the US. Although death certificate data are aggregated and mortality statistics for the United States are reported annually, no national estimate of CM deaths identified by death certificates is routinely reported. There are, however, cause of death codes that identify CM deaths. These codes are T74 – maltreatment syndromes, Y06 – neglect and abandonment, and Y07 – other maltreatment syndromes (World Health Organization, 1992). Aggregate analysis of fatal CM reported by states participating in the NCDR-CRS is currently underway, but has not yet been published. Table 2 shows the number of CM deaths in 2010 reported to NCANDS and identified from death certificate data publicly available on the CDC

Table 2

Child Maltreatment Deaths in the United States from the National Child Abuse and Neglect Data System (NCANDS) and Death Certificates, 2010

Data Source	Year	Number of Child Maltreatment Deaths
NCANDS national estimate	2010	1580*
Deaths Certificates (ICD-10 codes T74, Y06, Y07) €	2010	282

ICD-10 = International Classification of Disease, 10th Revision; T74 – Maltreatment Syndromes; Y06 – Neglect and Abandonment; Y07 – Other Maltreatment.

*Note: This is the estimate for 2010 that appears in the 2011 report. This number is revised, based on additional data from states, from the initial estimate made in the 2010 report. (U.S. Department of Health and Human Services, Administration for Children, Youth and Families, 2012)

€Centers for Disease Control and Prevention, National Center for Health Statistics, 2012.

website (DHHS, Administration on Children, Youth and Families, 2012; Centers for Disease Control and Prevention, National Center for Health Statistics, 2012).

It is important to emphasize that all states and most agencies within states have similar definitions of child maltreatment, adapted from the CAPTA definition: “Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or...which presents an imminent risk of serious harm” (DHHS et al., 2013). In practice, there is widespread consensus across agencies and professionals on what actions constitute physical abuse. However, as discussed earlier in this article, obtaining consensus across disciplines on what actions constitute neglect is a far more difficult problem. The CDC CM Surveillance definition is also based on this CAPTA definition; however, the CDC CM definition document does provide additional specific instructions for classifying maltreatment for public health purposes in an effort to reduce ambiguity and improve consistency in classification (Leeb et al., 2008).

The diverse numbers of CM deaths identified from the different data sources result from differences in operationalizing the definition of CM, often due to the purpose and function of the agency, and much of the variation across data sources is due to differing criteria for determining neglect (Palusci et al., 2010). In practice, when the circumstances of death are reviewed by agency professionals, it is determined whether the definition of CM is met. As a result, a child's death investigated by more than one agency (e.g., child protective services, law enforcement, medical examiner) might be classified differently by each. Table 3 summarizes the purpose of the agencies that serve as key sources of CM fatality data, and provide some examples of reasons CM may not be classified in their data.

Recommendations

A body of research has documented the challenges in more accurately estimating fatal CM. Federal agencies have called for more accurate

Table 3

Agency Purpose and Classification of Child Maltreatment Fatalities

Agency/ Organization	Purpose	Reason Death Might Not Classified as Maltreatment
Child Protective Services/ Child Welfare	Receive and investigate reports of child abuse and neglect Provide services to ensure at risk children are protected	Death not reported to child welfare No other children in home; some states are not asked to investigate if no surviving children in home to protect Investigation may not yield adequate information to classify maltreatment
Vital Records/ Death Certificates	Document cause and manner of death Compile mortality statistics for public health agencies Monitor trends in mortality	Inadequate or no death investigation Maltreatment not suspected or diagnosed by certifying physician Abuse or neglect implied rather than explicitly listed as cause of death or contributory condition
Child Death Review Programs	Multidisciplinary review of circumstances of death Identify risk factors for child deaths Identify potential prevention strategies	Lack of clear operational definition of CM Unable to reach consensus on whether death was maltreatment-related Review does not yield adequate information to classify maltreatment

counts and various attempts have been made, from including data from alternative sources in the NCANDS to funding public health surveillance programs at the state level. Still, the issue remains: we do not have a national system in place that accurately enumerates fatal CM, let alone a population-based surveillance system that uses a clearly articulated operational definition to better estimate fatal CM, and includes data necessary for prevention.

Based on the existing research, our collective experience, and our participation in the CM Measurement Workgroup convened by the Casey Family Programs during 2012, we provide recommendations for developing better estimates of fatal CM at state and national levels by advancing public health surveillance of fatal CM. We focus on surveillance and a public health model as an overarching framework to emphasize ongoing collection of data to document the significance of the problem, monitor trends, and focus on prevention, health promotion and quality of life.

Public Health Surveillance

- Support the development, field testing and implementation of a practical approach to operationalizing a public health definition of CM fatality.
- Develop a national public health surveillance system for CM fatalities that is not under the auspices of a single agency responsible for investigating CM. This system should build upon current strengths in existing data systems, capitalize on technical and programmatic knowledge of professionals from all related disciplines, and incorporate new and innovative methods to achieve comprehensive estimates of fatal CM.
- Determine the role of federal and state agencies in leadership and funding the development and sustainability of a public health surveillance system for fatal CM.

Defining Fatal Child Maltreatment

- Develop a public health focused definition of CM. This definition should be as unambiguous as possible and clearly list inclusion or exclusion criteria. Furthermore, clear guidelines for operationalizing the definition should be developed and provided that include explicit examples.
- Consider including categories that permit a level of uncertainty—operationalizing definitions of presumptive and probable CM, for example.

- Develop a consensus definition of fatal child neglect that includes clear and specific criteria for operationalizing the consensus definition.
 - Include attributes identified in literature as influencing professionals' decisions when determining neglect.
 - Develop a decision tree that contains the attributes and other key criteria

Improving Ascertainment of Fatal Child Neglect

- Develop an operational definition of neglect for public health surveillance that does not rely on agency-specific (e.g., child welfare, law enforcement) determination of neglect.
- Create nomenclature that, as much as possible, does not overlap with agency-specific definitions of neglect in order to improve case ascertainment for public health surveillance purposes, and more broadly and effectively focus prevention strategies.

Child Welfare Data and NCANDS

- Develop guidelines for state reporting to NCANDS to better identify and report fatal CM in a standard way across states and jurisdictions regardless of agency or legal adjudication.
- Provide additional training and technical assistance to states to improve their capacity to identify and report fatal CM in a standard manner, including use of multiple data sources.
- Investigate the feasibility of creating a separate file within NCANDS to facilitate collection of additional detail on fatalities, as well as to facilitate updating annual statistics in subsequent years.

Death Certificates and Medical Examiner/Coroner Systems

- Create a model statute for a Medical Examiner system, expand pathology training programs to train more forensic pathologists, and increase funding for Medical Examiner facilities, equipment, staff, and training. These improvements

will provide a firm foundation for a transition from coroner systems to medical examiner systems in the United States. A national medical examiner system would facilitate regulation of death investigation through the promulgation of standards of practice for forensic pathologists and medicolegal death investigators resulting in better death investigation, more accurate death certification, and more reliable vital statistics.

- In the shorter term, improving the quality of death investigations in states that have coroner or mixed coroner-medical examiner systems should be supported by requiring its coroners to:
 - o use a nationally-standardized child death investigation tool to conduct investigations,
 - o contract only with forensic pathologists to perform autopsies in child and infant death cases,
 - o defer to forensic pathologists in determining the cause and manner of death in such cases.
- Improve the identification of fatal CM from vital records by adding a check box to indicate child maltreatment, similar to the check boxes currently in use to identify other conditions or exposure of interest such as work-related injury and tobacco-related deaths, to the U.S. Standard Death Certificate.
 - o Provide training and guidance to certifying physicians regarding the definition of child maltreatment established for this purpose, lest they think that the selection of this check box will necessarily influence the outcome of child welfare or criminal investigations.
- Encourage coroners and medical examiners to actively participate in state and local CDR processes.

Child Death Review

- Strengthen the role and capacity of state and local CDR teams to serve as multi-agency, multi-disciplinary forums for reviewing child deaths, identifying, classifying, and reporting fatal CM.

- Investigate the feasibility of further developing and strengthening the existing network of state and local CDR teams for the purpose of creating a national system for public health surveillance of fatal CM.
- Promote national and state cross-disciplinary training and technical assistance for the investigation, identification, and reporting of CM fatalities.

Conclusions

We have reviewed a number of factors that contribute to the complexity of estimating fatal CM and provided a series of recommendations focused on using public health surveillance to develop better estimates of fatal CM in the United States. This is not, however, a simple issue to solve. Significant challenges remain. Perhaps the most significant challenges to moving forward with instituting widespread public health surveillance for fatal CM are (1) a reluctance to expend substantial resources to address a relatively infrequent event; and (2) the complexity of coordinating multiple local and state agencies, organizations, and jurisdictions to effectively contribute to a national surveillance system.

Death investigation and determination that a child's death is maltreatment-related is decidedly a local matter. It involves professionals in multiple disciplines—medicine, law enforcement, child welfare, and the judicial system—who, as we have discussed, are all working under different legal and regulatory standards. Moving these professionals toward a public health model of classifying CM for purposes unrelated to child protection or perpetrator identification and prosecution is an immense undertaking, likened to a tectonic shift. One that, although we think it is possible, will take tremendous time and effort.

The potential value of the public health model is in not just identifying and counting the deaths, but in collecting risk factor data and using it to develop prevention strategies. Given the enormous societal cost and the physical and mental health consequences of CM, it is feasible that using public health surveillance methods

to identify and prevent fatal CM will inform prevention of CM more broadly.

Importantly, fatal CM is merely the tip of the iceberg—thousands or tens of thousands of maltreated children are critically or permanently injured each year. States are increasingly interested in identifying these children (United States Government Accountability Office [GAO], 2011). Nineteen states collect data on “near fatalities” attributed to maltreatment, a term defined by the CAPTA Reauthorization Act of 2010 as “an act that, as certified by a physician, places the child in serious or critical condition.” A number of states expressed a desire for assistance in collection and use of data on CM near fatalities to GAO investigators examining this issue in 2011. The process of establishing public health surveillance for fatal CM could provide important procedural guidance for the development and field testing of similar surveillance processes for near fatalities, programs that could have far-reaching influence on the prevention CM in the United States.

References

- Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of death 1999-2010 on CDC WONDER online database, released 2012. Retrieved from <http://wonder.cdc.gov/mcd-icd10.html>.
- Covington, T. M. (2011). The US National Child Death review case reporting system. *Injury Prevention, 17 Suppl 1*, i34-i37.
- Crume, T. L., DiGuseppi, C., Byers, T., Sirotnak, A. P., & Garrett, C. J. (2002). Underascertainment of child maltreatment fatalities by death certificates, 1990-1998. *Pediatrics, 110*, e18.
- Ewigman, B., Kivlahan, C., & Land, G. (1993). The Missouri child fatality study: Underreporting of maltreatment fatalities among children younger than five years of age, 1983 through 1986. *Pediatrics, 91*, 330-337.
- Gibbs, D., Rojas Smith, L., Wetterhall, S., Farris, T., Schnitzer, P.G., Leeb, R.T., et al. (2013). Improving identification of child maltreatment fatalities through public health surveillance. *Journal of Public Child Welfare* (in press).

- Hammond, W. R. (2003). Public health and child maltreatment prevention: The role of the Centers for Disease Control and Prevention. *Child Maltreatment*, 8, 81-83.
- Herman-Giddens, M. E., Brown, G., Verbiest, S., Carlson, P. J., Hooten, E. G., Howell, E. et al. (1999). Underascertainment of child abuse mortality in the United States. *Journal of the American Medical Association*, 282, 463-467.
- Hickman, M. J., Hughes, K. A., Strom, K. J., & Roper-Miller, J. D. (2007). *USDOJ Bureau of Justice Statistics Special Report: Medical Examiners and Coroners' Offices, 2004*.
- Leeb, R. T., Paulozzi, L., Melanson, C., Simon, T., & Arias, I. (2008). *Child Maltreatment Surveillance: Uniform Definitions for Public Health Surveillance and Recommended Data Elements* Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Retrieved from http://www.cdc.gov/ncipc/dvp/CM_Surveillance.pdf.
- McClain, P. W., Sacks, J. J., Froehlke, R. G., & Ewigman, B. G. (1993). Estimates of fatal child abuse and neglect, United States, 1979 through 1988. *Pediatrics*, 91, 338-343.
- National Center for Child Death Review. (2011). Survey on the Status of CDR in the United States. Retrieved from: <http://www.childdeathreview.org/state.htm>.
- National Research Council (2009). Medical Examiner and Coroner Systems: Current and Future Needs. In *Strengthening Forensic Science in the United States: A Path Forward* (pp. 241-268). Washington, DC: The National Academies Press.
- Overpeck, M. D., Brenner, R. A., Trumble, A. C., Trifiletti, L. B., & Berendes, H. W. (1998). Risk factors for infant homicide in the United States. *New England Journal of Medicine*, 339, 1211-1216.
- Palusci, V. J., Wirtz, S. J., & Covington, T. M. (2010). Using capture-recapture methods to better ascertain the incidence of fatal child maltreatment. *Child Abuse Neglect*, 34, 396-402.
- Paulozzi, L. & Sells, M. (2002). Variation in homicide risk during infancy — United States, 1989-1998. *Morbidity and Mortality Weekly Report*, 51, 187-189.
- Putnam-Hornstein, E., Webster, D., Needell, B., & Magruder, J. (2011). A public health approach to child maltreatment surveillance: Evidence from a data linkage project in the United States. *Child Abuse Review*, 20, 256-273.

- Schnitzer, P. G., Covington, T. M., & Kruse, R. L. (2011). Assessment of caregiver responsibility in unintentional child injury deaths: Challenges for injury prevention. *Injury Prevention, 17 Suppl 1*, i45-i54.
- Schnitzer, P. G., Covington, T. M., Wirtz, S. J., Verhoek-Oftedahl, W., & Palusci, V. J. (2008). Public health surveillance of fatal child maltreatment: Analysis of 3 state programs. *American Journal of Public Health, 98*, 296-303.
- Schnitzer, P. G., Slusher, P., & Van, T. M. (2004). Child maltreatment in Missouri: Combining data for public health surveillance. *American Journal of Preventive Medicine, 27*, 379-384.
- Smith, L. R., Gibbs, D., Wetterhall, S., Schnitzer, P. G., Farris, T., Crosby, A. E. et al. (2011). Public health efforts to build a surveillance system for child maltreatment mortality: Lessons learned for stakeholder engagement. *Journal of Public Health Management and Practice, 17*, 542-549.
- Thacker, S.B. (1994). Historical Development. In S.M.Teutsch & R. E. Churchill (Eds.), *Principles and Practice of Public Health Surveillance*. New York: Oxford University Press.
- U.S Department of Health and Human Services, Administration for Children, Youth and Families. (2013). The Child Abuse Prevention and Treatment Act as amended by P.L. 111-320 The CAPTA Reauthroization Act of 2010. Retrieved from: <http://www.acf.hhs.gov/sites/default/files/cb/capta2010.pdf>.
- U.S. Department of Health and Human Services, Administration on Children, Youth and Families (2012). Child Maltreatment 2011. Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.acf.hhs.gov/sites/default/files/cb/cm11.pdf>.
- United States Government Accountability Office (2011). *CHILD MALTREATMENT Strengthening National Data on Child Fatalities Could Aid in Prevention* (Rep. No. GAO-11-599). Washington DC: US Government Accountability Office.
- Webster, R. A., Schnitzer, P. G., Jenny, C., Ewigman, B. G., & Alario, A. J. (2003). Child death review: The state of the nation. *American Journal of Preventive Medicine, 25*, 58-64.
- Whitaker, D. J., Lutzker, J. R., & Shelley, G. A. (2005). Child maltreatment prevention priorities at the Centers for Disease Control and Prevention. *Child Maltreatment, 10*, 245-259.

World Health Organization (1992). *ICD-10: International Statistical Classification of Diseases and Related Health Problems*. (10th revision ed.) Geneva, Switzerland: World Health Organization.

Wulczyn, F. (2009). Epidemiological perspectives on maltreatment prevention. *The Future of Children*, 19, 39-66.

Applying a Public Health Approach: The Role of State Health Departments in Preventing Maltreatment and Fatalities of Children

Malia Richmond-Crum

*Centers for Disease Control
and Prevention*

Catherine Joyner

*North Carolina Division of
Public Health*

Sally Fogerty

*Education Development
Center, Inc.*

Mei Ling Ellis

Casey Family Programs

Janet Saul

*Centers for Disease Control
and Prevention*

Child maltreatment prevention is traditionally conceptualized as a social services and criminal justice issue. Although these responses are critical and important, alone they are insufficient to prevent the problem. A public health approach is essential to realizing the prevention of child abuse and neglect. This paper discusses the public health model and social-ecology framework as ways to understand and address child maltreatment prevention and discusses the critical role health departments can have in preventing abuse and neglect. Information from an environmental scan of state public health departments is provided to increase understanding of the context in which state public health departments operate. Finally, an

example from North Carolina provides a practical look at one state's effort to create a cross-sector system of prevention that promotes safe, stable, and nurturing relationships and environments for children and families.

Authors' Note: The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention. Correspondence concerning this article should be addressed to Malia Richmond-Crum, Division of Violence Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, MS F-63, 4770 Buford Highway NE, Atlanta, GA 30341.

Although child abuse and neglect, also referred to as child maltreatment, is often viewed as the responsibility of child protective service agencies, public health departments can play an important role in addressing this issue. Public health's mission is assuring the conditions in which people can be healthy (Institutes of Medicine, 1988). A public health approach emphasizes preventing health problems by protecting and improving the health and well-being of individuals and communities. Federal, state, and local public health agencies work to prevent harm to children before it can occur through programs and prevention strategies directed at children, families, and the environment in which they interact.

Individual and Societal Consequences of Child Maltreatment

Child maltreatment is defined by the Centers for Disease Control and Prevention (CDC) as any act or series of acts of commission or omission by a parent or other caregiver (e.g., clergy, coach, teacher) that results in harm, potential for harm, or threat of harm to a child (Leeb, Paulozzi, Melanson, Simon, & Arias 2008). The four most common types of abuse are physical abuse, sexual abuse, emotional abuse, and neglect.

According to the National Child Abuse and Neglect Data System (NCANDS), 1,545 children in the United States died from maltreatment in 2011, while 676,569 children were victims of nonfatal abuse and neglect (U.S. Department of Health and Human Services [DHHS], 2012). NCANDS data are based on reports to state and local child protective services and may underestimate the true occurrence of child maltreatment. Another study that used child and parent self-report, showed more than 10 percent of children between the ages of zero and 17 experienced some form of child maltreatment (Finkelhor, Turner, Ormond, & Hamby, 2009). Child welfare data suggest that neglect is the most common form of child maltreatment, that neglect alone or neglect along with other types of maltreatment account for the majority of child fatalities, and that children are most

at risk of dying from maltreatment within the first few years of life (DHHS, 2012).

Victims of child maltreatment can experience both short- and long-term consequences affecting both physical and emotional health. Research has shown a link between adverse childhood experiences (ACEs) and adult chronic disease and negative health behaviors (Felitti et al., 1998; Finklehor et al., 2009; Thornberry, Ireland, & Smith, 2001). In addition to immediate consequences such as physical injuries, maltreatment can impact a child's brain development and lead to life-long health problems (Center of the Developing Child at Harvard University, 2010). These include, but are not limited to, heart, lung and liver disease; cancers; obesity; smoking; substance abuse; asthma; depression; and eating disorders (Felitti et al., 1998). Research on brain development has shown that abuse and neglect can lead to sustained stress responses in children. This stress response results in sustained high levels of hormones, which can negatively impact brain architecture (Center of the Developing Child at Harvard University, 2010) and leave individuals less able to manage stress as adolescents and adults. These individuals may subsequently adopt health behaviors, such as smoking, unhealthy eating, and substance (alcohol and drug) use as coping mechanisms, which can lead to a higher risk for developing associated chronic diseases (National Scientific Council on the Developing Child, 2005; Runyan, Wattam, Ikeda, Hassan, & Ramiro, 2002).

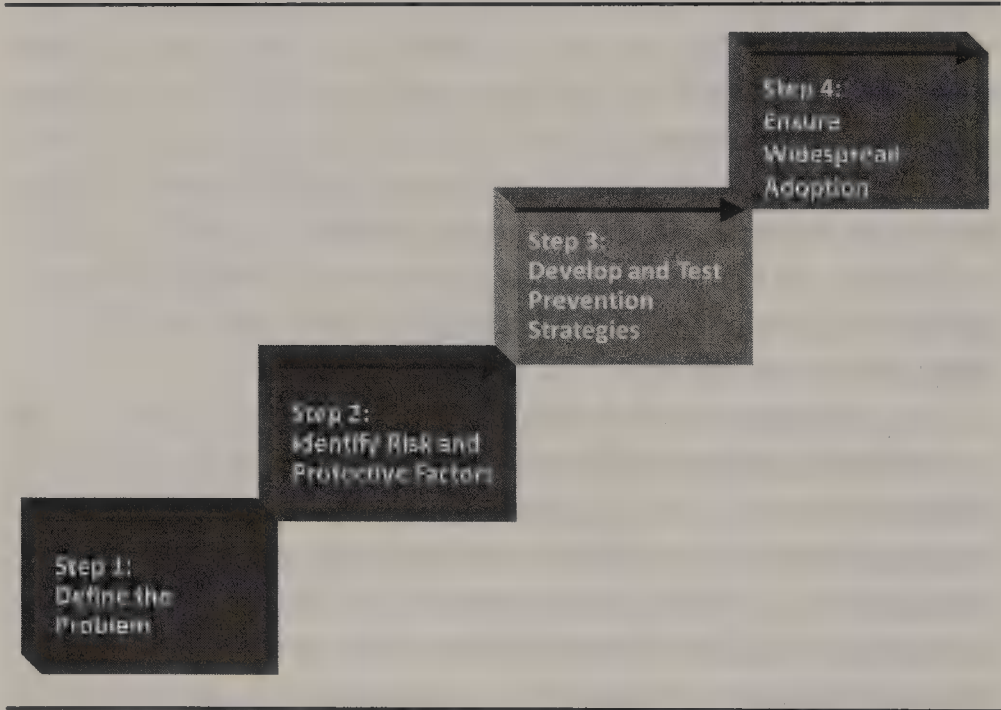
The consequences of child maltreatment go beyond an individual's physical and mental health. Recent research by the CDC's National Center for Injury Prevention and Control has estimated the total lifetime financial costs associated with just one year of confirmed cases of child maltreatment at \$124 billion (Fang, Florence & Mercy, 2012). The average lifetime cost per victim of nonfatal child maltreatment was \$210,012, which included costs for childhood and adult medical care; productivity losses; and child welfare, criminal justice, special education services. The estimated average lifetime cost per death was \$1,272,900, which includes medical costs and productivity losses (Fang et al., 2012). These costs are

comparable to the societal costs of other major public health problems such as Type 2 Diabetes (lifetime cost per person estimated at \$181,000 - \$253,000) and stroke (lifetime cost per person estimated at \$159,846) (Fang et al., 2012).

A Public Health Approach

The extreme burden and consequences of child maltreatment, both to individuals and society, makes the issue a public health problem. Public health attempts to solve problems, such as child maltreatment, in a systematic way. One common way of representing the public health approach is the four-step model shown in Figure 1 (Dahlberg & Krug, 2002; Mercy, Rosenberg, Powell, Broome, & Roper, 1993).

Figure 1
Public Health Model



The first step is *defining and monitoring the problem* (i.e., surveillance). Well-carried out surveillance provides an understanding of prevalence and risk, and supports effective planning, implementation, and evaluation of public health programs (Centers for Disease

Control and Prevention, 2001). Child maltreatment surveillance can be challenging due to lack of data and barriers in implementing common data definitions and sharing data across systems (Leeb et al., 2008). One resource available to public health professionals is the CDC's *Child Maltreatment Surveillance: Uniform Definitions for Public Health and Recommended Data Elements*, which provides definitions and data elements to promote and improve consistency of child maltreatment surveillance (Leeb, et al. 2008).

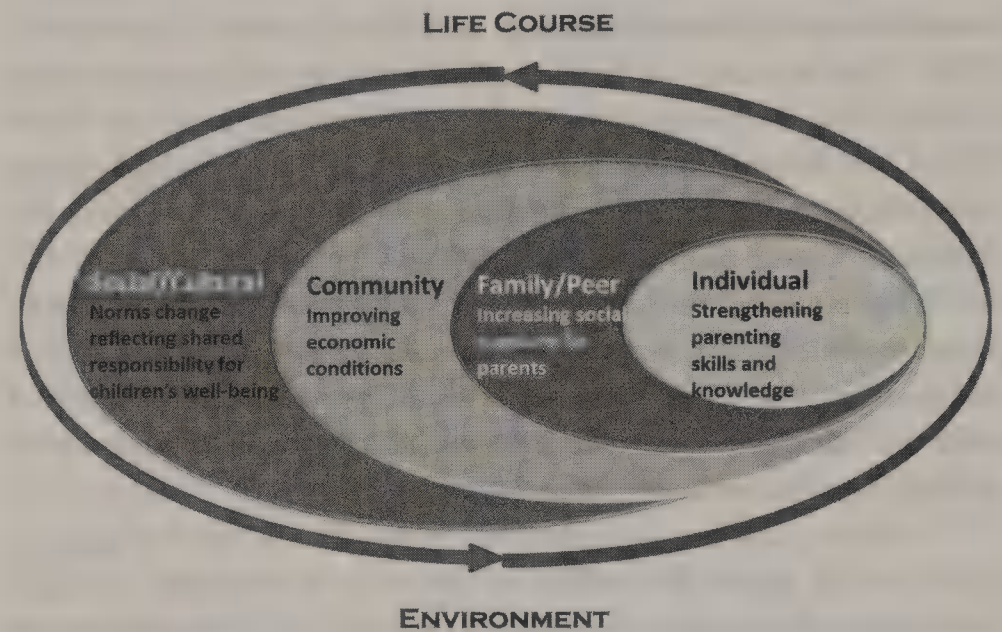
The second step in the public health model is *identifying risk and protective factors*. This step focuses on characteristics that increase or decrease the likelihood someone will be a victim or perpetrator of child maltreatment. Information about these factors is combined with surveillance data to plan prevention strategies.

Developing and testing prevention strategies is the third step of the public health model and builds on the previous two steps to create programs and strategies that promote protective factors and reduce risk factors in individuals and communities. In this step, public health practitioners build an evidence-base by designing and evaluating child maltreatment prevention programs and practices. This work requires not only identifying programs, but ongoing evaluation of implemented approaches to determine whether or not outcomes are achieved. Increasingly, policymakers, funders, and practitioners are focusing on the use of evidence-based programs to prevent child maltreatment because they are proven effective at achieving results that can be attributed to the program rather than to extraneous factors (e.g., selection of program participants or natural maturation that might occur during the course of the study) (Lewis-Beck, Bryman, & Futing, 2004).

The fourth and last step is *assuring widespread adoption*, which involves scaling-up evidence-based programs and practices through dissemination and implementation in a range of settings. This is the step that moves us from science to practice. It is critical to understand the capacity of individuals and organizations to implement prevention strategies, and to assure that they have adequate support to implement successfully. Achieving intended outcomes requires quality

Figure 2

A Social-Ecological Framework



implementation so that a program or practice is delivered with the highest degree of fidelity possible (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). Fixsen and colleagues (2005) summarized the required supports that organizations require to successfully implement an evidence-based program, including: assistance with community and agency planning; staff selection; pre-service and in-service training; ongoing coaching and consultation; and technical assistance in program evaluation and in quality assurance.

In addition to the four-step public health model, there are other frameworks that help us define the content of our prevention strategies, answering the questions, "What, and who, should be the focus of our prevention efforts?" Using a social-ecological framework (McLeroy, Bibeau, Steckler, & Glanz, 1988; Stokols, 1992, 1996) is particularly relevant as we work through the steps of the public health model (for example, step two of the public health model addresses risk and protective factors, which can be found at all four levels of the social-ecology). Public health is ultimately attempting to decrease rates of child maltreatment at the population level, and thus, requires

us to look beyond the individual level to the contexts in which maltreatment occurs. The social ecology allows us to address the “range of conditions that place children at risk for abuse and/or neglect, not just at the individual and family level, but also at the community and societal levels” (Zimmerman & Mercy, 2010, p. 4). It moves beyond individual and family dynamics and recognizes that human behavior is affected by a complex interplay of individual, peer, cultural, and environmental factors. (See Figure 2 for strategies related to child maltreatment protective factors at each level of the social ecology).

Child Maltreatment Prevention in State Health Departments

While frameworks such as those previously described are essential for public health to conceptualize and plan comprehensive prevention strategies, it is also important to understand the context in which health departments are implementing child maltreatment prevention efforts. In 2009, the CDC’s Division of Violence Prevention, in partnership with the Doris Duke Charitable Foundation and the CDC Foundation, embarked on a joint venture to understand the context of child maltreatment prevention in state public health departments. The purpose of the Public Health Leadership for Child Maltreatment Prevention (PHL) Initiative¹ was to identify the work that state health departments were engaged in to enhance family resilience, promote healthy child development, and prevent child maltreatment. As part of this initiative, an environmental scan was sent to Maternal and Child Health and Injury and Violence Prevention program directors in U.S. state health departments. Program staff members were asked to coordinate one response representing state health departments. The key findings summarized below are based on data received from all 50 states and the District of Columbia ($n = 51$; response rate = 100%).

1 More information is available at <http://vetoviolence.cdc.gov/childmaltreatment/phl/index.html>.

Commitment to Child Maltreatment Prevention

Overall, state health departments indicated a commitment to addressing child maltreatment as a public health issue. Ninety-six percent of health departments reported their state considered child maltreatment a public health issue, and 84% indicated that addressing child maltreatment prevention was in alignment with health department priorities. However, the health department was identified as the lead entity for child maltreatment prevention in only five states.

States also indicated that they had certain structures in place to facilitate child maltreatment prevention efforts. In 31 health departments, one or more of the following states had:

- Designated child maltreatment program or staff person in the state health department (39%)
- Child maltreatment prevention strategic/action plan (41%).
- Law, statute, or executive order (37%) mandating public health participation in child maltreatment prevention.

Commitment to child maltreatment prevention by health department staff and leaders may help garner needed resources (e.g., staff expertise; data and surveillance technical support) that allow for comprehensive efforts at each step of the public health model. A designated child maltreatment staff person in the health department may be a coordinating figure to assure that comprehensive efforts are implementing at multiple levels of the social-ecological framework. Strategic plans may help prioritize steps in the public health framework that are not being addressed (e.g., surveillance of risk and protective factors) or prioritize prevention efforts that address societal and community context (e.g., parenting norms) in addition to individual and relationship factors (e.g., parenting skills).

Health Department Roles

Health departments were asked what role they play in state child maltreatment prevention efforts. The top five roles were:

- Identifying and targeting at-risk populations;
- Making referrals to external resources;
- Communicating best practices;

- Convening partners; and
- Building state capacity for child maltreatment prevention efforts.

When asked what role a health departments *should* play, respondents felt these same five roles were most important. In general, state health departments reported they should be doing more child maltreatment prevention work.

The roles identified by health departments align with the steps of the public health framework. States working to identify and target at-risk populations are helping to define the problem of child maltreatment (steps 1 and 2). Building state capacity for child maltreatment prevention efforts helps states develop and test prevention strategies (step 3) and convening partners and communicating best practices are part of widespread adoption of prevention strategies (step 4).

Programs

Programs that promote the health, safety, and well-being of families are often the responsibility of health departments. This work has traditionally centered on addressing factors at the individual and family levels of the social-ecological framework and has been done through home visiting programs², well child primary care visits, and WIC (Women, Infant's and Children's Nutrition Program) to name a few. The environmental scan showed that this work is still continuing. A majority of states (88%) reported administering home visiting programs, either using well-established national models, such as the Nurse-Family Partnership (Olds et al., 1997), or state designed models. These programs focused on positive family outcomes, such as improved perinatal health, fewer childhood injuries, fewer subsequent pregnancies, decreased parental stress, and improved child development. In addition to home visiting, all 51 state health departments reported being involved in programs that support child and

2 The scan was completed prior to the implementation of the Federal Maternal, Infant and Early Childhood Home Visiting Program, which has significantly expanded home visiting services nationally.

family health and well-being. Examples included: well-child services (e.g., primary care, developmental screenings) (82%); home safety education and checks (75%); shaken baby prevention (69%); and maternal mental health screening (67%)³.

Collaboration

Collaboration appeared to be an important strategy used by health departments, both internally (i.e., across multiple programs and divisions within the health department) and externally (i.e., across organizations and sectors). Internally, collaboration was most often carried out through data collection; joint committees; joint trainings; local interventions; and cross-program funding of staff. Eight states reported activity in all five of these areas, while 18 states collaborated in three or less. Externally, health departments collaborated with the following organizations:⁴

- Child welfare/protection (92%)
- Children's Trust Fund (76%)
- Strengthening Families Initiative (SFI) (85% of states with SFI)
- Prevent Child Abuse America (PCA) state affiliate (74% of states with a PCA affiliate)

Collaboration was viewed as both an asset and a challenge. Having a broad range of programs in many different locations presented a challenge for coordinated, cross-systems prevention efforts. However, building strong collaborations between different organizations was viewed as an important piece of a comprehensive approach in a resource-limited environment. Child maltreatment is a complex problem that requires multiple systems working together to bring about necessary change; change not only in individual behavior and family functioning, but also to community and social contexts that

3 Percentages reflect the number of states reporting these activities and states could respond to more than one category. The full report of results is available at http://www.cdc.gov/violenceprevention/pdf/PHLI_CM_environmental_scan-a.pdf.

4 Health departments could select more than one agency or organization. The full report of results is available at http://www.cdc.gov/violenceprevention/pdf/PHLI_CM_environmental_scan-a.pdf.

effect individuals and families. No one agency or organization will be able to accomplish this alone.

Although there are varying degrees of state health department involvement in child maltreatment prevention, a few states are taking on this important issue as a public health problem. One state that is actively using a public health approach is North Carolina. The next section provides an overview of this experience.

North Carolina's Public Health Approach

In 2004, a group of state leaders from multiple disciplines came together through a North Carolina Institute of Medicine (NCIOM) Task Force to study child maltreatment prevention and develop a state action plan⁵. Leaders from early childhood, public health, mental health, education, child welfare, universities, and civic leadership collaborated to develop a common vision of child maltreatment prevention. They understood North Carolina (NC) needed better coordination between partners promoting healthy family development and community support of families, and most importantly, needed to move from a "child welfare" frame of child maltreatment prevention to a "public health" frame—one that focused investments "upstream." Task Force recommendations fell into six broad areas:

1. leadership for child maltreatment prevention;
2. development of a surveillance system;
3. changing social norms to support healthy parenting and strong families;
4. increasing the use of evidence-based and promising practices;
5. enhancing practice within systems and programs serving families and children; and
6. increasing funding for child maltreatment prevention⁶.

The recommendations were not "owned" by any one agency and were endorsed by all Task Force members and their organizations.

5 The NCIOM Task Force on Child Maltreatment Prevention was a collaborative effort between the NC Institute of Medicine and Prevent Child Abuse NC and funded by a grant from The Duke Endowment.

6 The full report is available at <http://www.nciom.org/task-forces-and-projects/?childabuseprevention>

The recommendations provided a vision for prevention activities with a focus on developing coordinated efforts across the state.

Leadership

State-level leadership was recognized as a need by the Task Force since, at that time, child maltreatment prevention efforts were fragmented across agencies with little shared planning and few shared outcome measures. Numerous public and private agencies provided prevention services; however, no state public agency had programmatic authority or accountability for child maltreatment prevention efforts across the state. As a result, the NC Division of Public Health (DPH) and Prevent Child Abuse North Carolina were charged with developing and overseeing these efforts. Funding for a coordinating staff person, housed within the Division of Public Health, was provided by the NC General Assembly.

Surveillance

The Task Force also recognized NC's need for a comprehensive surveillance system to accurately measure the magnitude of child maltreatment, provide information for program planning and implementation, evaluate system success and needs, and inform policymakers and the public on the status of child maltreatment efforts. The lack of consistent information about the number of children affected by maltreatment limited NC's ability to respond effectively to the problem.

In collaboration with multiple external stakeholders, the DPH's Injury and Violence Prevention branch began working on this issue in 2007 and developed a plan for a state-wide surveillance system. Funding was identified in 2011 through the CDC Core Injury and Violence Prevention program. A second grant from the John Rex Endowment was obtained and is being used to develop a comprehensive child maltreatment surveillance system in Wake County, which will inform implementation of the state-level child maltreatment surveillance system.

Social Norms Change

Another key priority identified by the Task Force was the need to shift the perceptions of state leaders, providers, and community members about healthy family development and violence prevention. The Task Force identified distinct, but interrelated, strategies to accomplish this goal: (1) public awareness campaigns focused on individual and community support of positive parenting; and (2) increased statewide support and coordination of grassroots, comprehensive violence prevention efforts. Prevent Child Abuse NC (PCANC) is leading efforts in the state to change the public dialogue related to child maltreatment prevention and healthy child and family development. PCANC works with organizations across the state to increase understanding of framing public messages and to collaborate on communications efforts. The goal is to inform policy decisions by changing the public conversation and is based on the Strategic Framing Analysis method, a form of communications research and practice developed by the Frameworks Institute that focuses on key social problems.

Increasing Use of Evidence-Based Programs

Implementing evidence-based programs (EPBs) was another area the Task Force focused their recommendations, recognizing that strategically investing in proven programs that assist families and communities and promote healthy child development would yield long-term economic and social returns. With limited funding and staff resources, EBP best utilize resources and meet the standard for public accountability and cost effectiveness (Aos, 2002; Jones, Bumbarger, Greenberg, Greenwood, & Kyler, 2008; Lee et. al., 2012).

There was also a need for a less “silo-based” and a more integrated approach to supporting implementation of EPBs. Therefore, a major focus in NC has been integrating state efforts into a coordinated system and focusing on promoting the use of common or shared indicators; aligning funding, policies, and priorities; and collaborative policy development. Understanding that achieving positive outcomes would require the selection of the appropriate program for target

populations, the state identified a continuum of programs (from promising practice to evidence-based) for communities to implement based on desired outcomes. These included:

Triple P Positive Parenting Program is a population-based, multi-level family and parenting support intervention that aims to prevent child maltreatment by promoting positive and nurturing relationships between parent and child (Sanders, Turner, & Markie-Dadds, 2002). Triple P combines universal and selected elements ranging from media campaigns to targeted interventions with parents. A population-based trial of the Triple P system in the United States by Prinz, Sanders, Shapiro, Whitaker, & Lutzker (2009) demonstrated reductions in substantiated cases of child maltreatment, out of home placements, child hospitalizations, and emergency department visits due to child maltreatment-related injuries. Currently, Triple P is being implemented in 16 NC counties through a variety of funding sources including: the Title V/Maternal and Child Health Block Grant, Project LAUNCH, the Race for the Top Early Learning Challenge, and the American Public Health Association.

Nurse Family Partnership (NFP) is an intensive home visiting program for first time, low-income mothers, which may be implemented as a universal or selective intervention (Olds et al., 1997). Decades of clinical research and experience in high quality replication has demonstrated NFP improves maternal and birth outcomes, young child health, and family self-sufficiency (Eckenrode et al., 2010; Kitzman et al., 2010). In North Carolina, a public-private partnership of nonprofits, foundations and government agencies support NFP as a child maltreatment primary prevention strategy. NFP has grown from one program serving one county in 2007 to 10 programs serving 16 counties.

The Period of PURPLE Crying®: Keeping Babies Safe in North Carolina is a statewide, universal approach to prevent abusive head trauma (AHT) or “shaken baby syndrome” (Barr, Barr, Fujiwara, Conway, Catherine, & Brant, 2009). Implemented over a five-year period, the goal of this intervention is to prepare

parents and caregivers to respond safely and explicitly to infant crying to reduce hospital admissions and deaths from AHT.

The Incredible Years Parenting Program (IY) fosters healthy development in young children by strengthening parenting competencies and promoting effective strategies for managing children's challenging behaviors (Webster-Stratton, 1998; Posthumus, Raaijmakers, Maassen, Van Engeland, & Matthys, 2012). In North Carolina, a public-private partnership of nonprofits, foundations, and government agencies supports IY as a child maltreatment primary prevention strategy. The program has expanded from implementation by one community-based organization in 2007, to more than 25 sites across the state.

Strengthening Families Program 6-11 is a family life skills training program that improves parenting skills, enhances family relationships, and increased children's social and life skills. The goals of the program include: increased resilience; reduced risk factors for substance abuse, aggression, depression, delinquency, and school failure; and reduced child maltreatment by strengthening bonds between parents and children and increasing use of positive parenting skills (Prevent Child Abuse North Carolina, 2013).

Enhancing Practice

Achieving desired outcomes, such as preventing child maltreatment, requires more than the selection and funding of evidence-based programs. Even the best evaluated programs will not yield expected outcomes if not implemented as designed. Many organizations lack the expertise required for high-quality implementation and may need additional assistance. North Carolina is working to go beyond just disseminating evidence-based prevention practices to creating the infrastructure to ensure implementation is done correctly and consistently. With assistance from philanthropic organizations, such as The Duke Endowment and the Kate B. Reynolds's Charitable Trust, and governmental agencies, such as the state Department of Health and Human Services, NC has begun to build the needed infrastructure support for three evidence-based programs: Nurse Family

Partnership, the Incredible Years, and the Strengthening Families Program 6-11. These partners have developed shared indicators, common grant requirements, and shared evaluation for these programs, which reduce duplication of effort and gaps in services.

Funding

The state level infrastructure designed to prevent child maltreatment and promote healthy child development in North Carolina is characterized, as in many other states, by categorical funding streams and categorical programs. Multiple initiatives such as the NCIOM Task Force on Child Abuse Prevention, the Early Childhood Comprehensive System, the NC Child Fatality Task Force, Project LAUNCH, and the Race for the Top Early Learning Challenge, have helped state agencies see the benefits of a more collaborative approach. However, categorical funding and accountability systems remain generally separate, which is a major obstacle to whole system integration. Additional barriers to full implementation include: a state and national fiscal crisis, resulting in increasingly limited resources; changes in leadership at the state and key stakeholder level; and competing priorities.

Conclusion

There is a widely shared vision that all children deserve to grow up in environments that are safe, stable, and nurturing—that promote a child's physical, emotional, cognitive, and behavioral health. There is growing awareness among practitioners, researchers, funders, and policymakers that achieving such a vision requires a public health approach, one which conceptualizes a child's well-being as deeply influenced by the child's ecology, the relationship between the child and his or her environment. This approach focuses on primary prevention and helping families before maltreatment occurs, rather than intervening after the fact. If we are going to ensure that children grow up in safe, stable, and nurturing environments, then we are going to need the leadership, resources, and expertise of our state public health agencies.

References

- Aos, S. (2002). The juvenile justice system in Washington State: Recommendations to improve cost-effectiveness. *Washington State Institute for Public Policy*. Retrieved from <http://www.wsipp.wa.gov/pub.asp?docid=02-10-1201>.
- Barr, R.G., Barr, M., Fujiwara, T., Conway, J., Catherine, N., & Brant, R. (2009) Do educational materials change knowledge and behavior about crying and shaken baby syndrome? A randomized controlled trial. *Canadian Medical Association Journal*, 180, 727–33.
- Center of the Developing Child at Harvard University. (2010). *The Foundations of Lifelong Health are built in Early Childhood*. Retrieved from <http://developingchild.harvard.edu/>.
- Centers for Disease Control and Prevention. (2001) *Updated guidelines for evaluating public health surveillance systems: recommendations from the guidelines working group*. MMWR; 50 (No. RR-13): 1-35.
- Dahlberg, L.L. & Krug, E.G. (2002). Violence—a global public health problem. In Krug, E., Dahlberg, L.L., Mercy, J.A., Zwi, A.B., & Lozano, R. (Eds.) *World Report on Violence and Health*. Geneva, Switzerland: *World Health Organization*.
- Eckenrode, J., Campa, M., Luckey, D.W., Henderson, C.R., Cole, R.C., Kitzman, H., Anson, E., Sidora-Arcole, K., Powers, J., Olds, D. (2010) Long-term Effects of Prenatal and Infancy Nurse Home Visitation on the Life Course of Youths: 19-Year Follow-up of a Randomized Trial. *Archives of Pediatric and Adolescent Medicine*, 164, 9-15.
- Fang, X., Florence, C.; & Mercy, J. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse and Neglect*, 36, 156-165.
- Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D., Spitz, A.M., Edwards, V., Koss, M.P., & Marks, J.S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the Adverse Childhood Experiences (ACE) study. *American Journal of Preventive Medicine*, 14, 245-258.
- Finkelhor, D., Turner, H., Ormond, R., & Hamby, S.L. (2009). Violence, abuse, and crime exposure in a national sample of children and youth. *Pediatrics*, 124: 1411-1423.
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Tampa, FL: *University of South Florida*, Louis de la Parte Florida.

- Institute of Medicine (1988). *The Future of Public Health*. Washington, DC: National Academy Press.
- Jones, D., Bumbarger, B., Greenberg, M., Greenwood, P., & Kyler, S. (2008). *The Economic Return on PCCD's Investment in Research-based Programs: A cost-benefit assessment of delinquency prevention in Pennsylvania*. Prevention Research Center, Penn State University. Retrieved from http://prevention.psu.edu/pubs/Research_Reports.html.
- Kitzman, H.J., Olds, D.L., Cole, R.E., Hanks, C.A., Anson, E.A., Arcoleo, K. J., ... Holmberg, J.R. (2010) Enduring Effects of Prenatal and Infancy Home Visiting by Nurses on Children: Follow-up of a Randomized Trial Among Children at Age 12 Years. *Archives of Pediatric and Adolescent Medicine*, 164(5), 412-418.
- Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., & Anderson, L. (2012). *Return on investment: Evidence-based options to improve statewide outcomes, April 2012*. Washington State Institute for Public Policy. Retrieved from <http://www.wsipp.wa.gov/pub.asp?docid=12-04-1201>.
- Leeb, R.T., Paulozzi, L. J., Melanson, C., Simon, T. R., & Arias, I. (2008). *Child maltreatment surveillance: Uniform definitions for public health and recommended data elements*. Center for Disease Control and Prevention, National Center for Injury Prevention and Control. Atlanta, GA. Retrieved from: http://www.cdc.gov/violenceprevention/pdf/CM_Surveillance-a.pdf.
- Lewis-Beck, M.S., Bryman, A., & Futing, T. (2004). *The Sage Encyclopedia of Social Science Research Methods*. Thousand Oaks, CA: Sage, 2004.
- McLeroy K. R., Bibeau D., Steckler A., & Glanz K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15, 351-377
- Mercy, J.A., Rosenberg, M.L., Powell, K.E., Broome, C.V., & Roper, W.L. (1993). Public health policy for preventing violence. *Health Affairs*. 12, 7-29.
- National Scientific Council on the Developing Child. (2005). *Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper #3*. Retrieved from <http://developingchild.harvard.edu/>.
- Olds, D. L., Eckenrode, J., Henderson Jr., C.R., Kitman, H., Powers, J., Cole, R., ... Luckey, D. (1997) Long-term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect: Fifteen-year Follow-up of a Randomized Trial. *Journal of the American Medical Association*, 278, 637-643

- Prevent Child Abuse North Carolina. (2013). *Strengthening families program 6-11*. Retrieved from: <http://www.preventchildabusenc.org/index.cfm?fuseaction=cms.page&id=1006>.
- Prinz, R. J., Sanders, M. R., Shapiro, C. J., Whitaker, D. J., Lutzker, J. R., (2009). Population-based prevention of child maltreatment: The U.S. Triple P system. *Prevention Science*, 10(1), 1-12.
- Posthumus, J. A., Raaijmakers, M. A. J., Maassen, G. H., Van Engeland, H., & Matthys, W (2012). Sustained effects of incredible years as a preventive intervention in preschool children with conduct problems. *Journal of Abnormal Child Psychology* 40, 487-500.
- Runyan, D., Wattam, C., Ikeda, R., Hassan, F., & Ramiro, L. (2002). Child abuse and neglect by parents and caregivers. Krug, E., Dahlberg, L. L., Mercy, J. A., Zwi, A. B., & Lozano, R. (Eds.). *World Report on Violence and Health*. Geneva, Switzerland: World Health Organization.
- Sanders, M. R., Turner, K. M. T., Markie-Dadds, C. (2002). The development and dissemination of the Triple P-Positive Parenting Program: a multi-level, evidence-based system of parenting and family support. *Prevention Science*, 3, 173-98
- Stokols, D. (1992). Establishing and maintaining healthy environments: Toward a social ecology of health promotion. *American Psychologist*, 47, 6-22
- Stokols D. (1996). Translating social ecological theory into guidelines for community health promotion. *American Journal of Health Promotion*, 10, 282-298.
- Thornberry, T. P., Ireland, T. O., & Smith, C. A. (2001). The importance of timing: the varying impact of childhood and adolescent maltreatment on multiple problem outcomes. *Development and Psychopathology*, 13, 957-979.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2012). *Child Maltreatment 2012*. Retrieved from <http://www.acf.hhs.gov/programs/cb/resource/child-maltreatment-2011>.
- Webster-Stratton, C. (1998). Preventing conduct problems in Head Start children: Strengthening parent competencies. *Journal of Consulting and Clinical Psychology*, 66(5), 715-730.
- Zimmerman, F. and Mercy, J. (2010). A Better Start: Child Maltreatment Prevention as a Public Health Priority. *Zero to Three*, 30(5), 4-10.

Effective Primary Prevention Programs in Public Health and their Applicability to the Prevention of Child Maltreatment

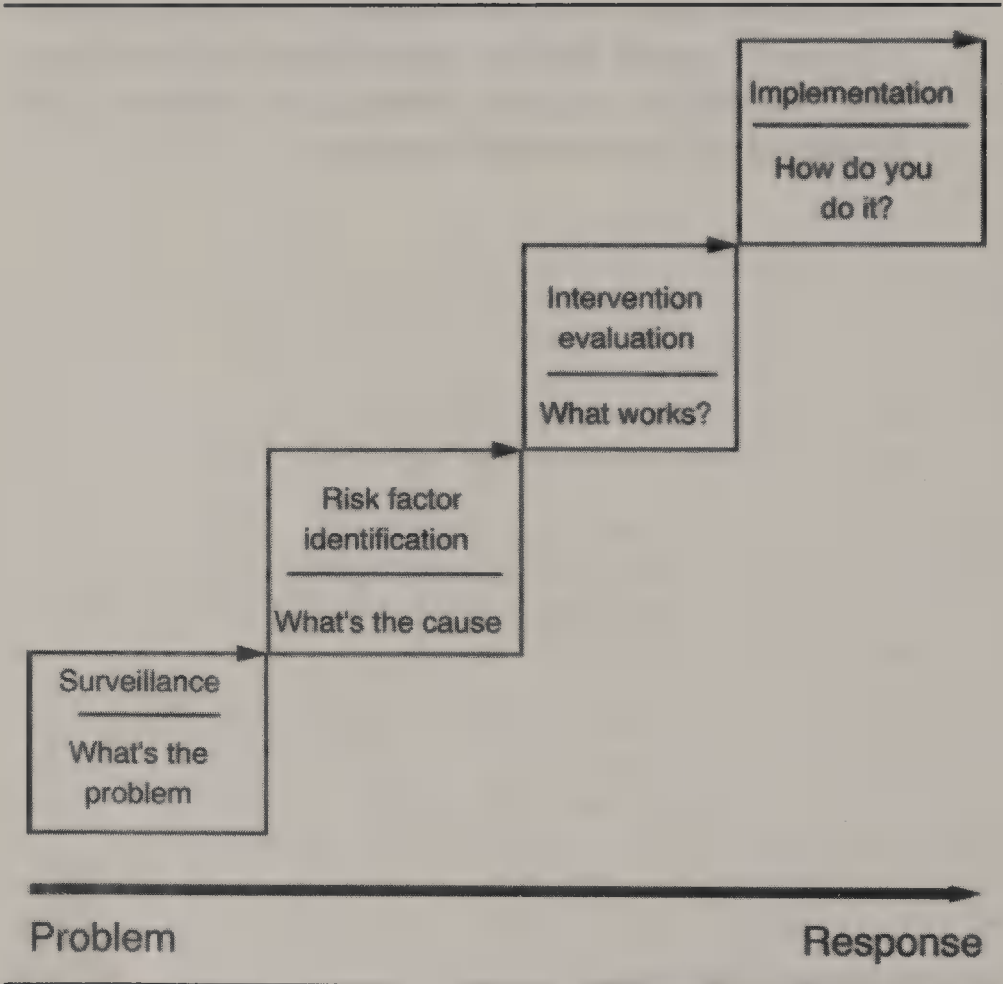
Frederick P. Rivara
University of Washington

Brian Johnston
University of Washington

Principles of public health practice can be applied to problems, such as child maltreatment, that have behavioral antecedents and injury outcomes. Successful campaigns to promote bicycle helmet use to prevent brain injury and to promote supine sleeping to prevent sudden infant death are described. These programs were universally applied, featured simple behavioral goals, were based on the best available evidence, and monitored both behavioral and health-related outcomes.

Public health is concerned with maximizing the health of a population utilizing interventions that are evidence-based, cost-effective and applicable on a large scale. The public health approach (Figure 1) rests on *surveillance* to determine the burden of a problem in a population and evaluate changes in incidence over time. Associated risk and protective factors are sought, usually in cohort or case-control studies. As risk factors are identified, interventions are developed and evaluated, increasingly in large-scale randomized trials. Interventions found to be effective are disseminated and brought to scale.

Figure 1
The Public Health Approach



Over the last 50 years, important public health achievements have made enormous differences in the health of the population. In this article, we focus on two problems—traumatic brain injuries from bicycle-related crashes and Sudden Infant Death Syndrome (SIDS)—and the public health interventions developed, tested, and implemented to address them. Lessons learned from these successful interventions could be generalized and applied to other issues in child health, including the prevention of child maltreatment.

Traumatic Brain Injuries Due to Bicycle-Related Crashes

The prevention of traumatic brain injury (TBI) through the use of bike helmets illustrates important points for addressing a public health problem. The program was based on scientific evidence behind an intervention (helmets), a careful narrow focus (increasing helmet use), a message that made sense (wear helmets), and a cheap, feasible intervention, supported by marketing and manufacturers.

When the Harborview Injury Prevention and Research Center began work on bicycle injuries in 1986, there were about 500,000 bike-related injuries treated annually in US hospital emergency departments and about 900 deaths per year (Rivara, Thompson, Patterson, & Thompson, 1998). The highest rate of injury (per mile ridden) was among children under the age of 15. TBI accounted for about one-third of ED treated injuries, two-thirds of hospital admissions, and three-fourths of deaths related to bicycling.

Evidence of Helmet Effectiveness

Prior to our studies, there were limited data on the effectiveness of bicycle helmets. To understand the effect of helmet use in bicycling, large cohort studies were not feasible and randomized trials were not an option, for both ethical and practical reasons. Instead, we used case-control studies, which had been applied in other injury prevention research (Kellermann, Rivara, Rushforth, et al., 1993; Kellermann et al., 1992; Kellermann, Westphal, Fischer, & Harvard, 1995; Haddon,

Valien, McCarroll, & Umberger, 1961), but had not been used to examine the protective effect of a device such as helmets.

We undertook two case-control studies. The first, funded by the Group Health Foundation, studied about 700 people and found that helmets reduced the risk of head injuries by 85% and brain injuries by 88% (R. S. Thompson, Rivara, & Thompson, 1989). A second, larger study funded by the Snell Foundation showed that helmets were protective in motor vehicle-bike crashes, were effective at all ages, among all helmet types, and prevented facial as well as brain injuries (Thompson, Nunn, Thompson, & Rivara, 1996; Thompson, Rivara, & Thompson, 1996).

Intervention

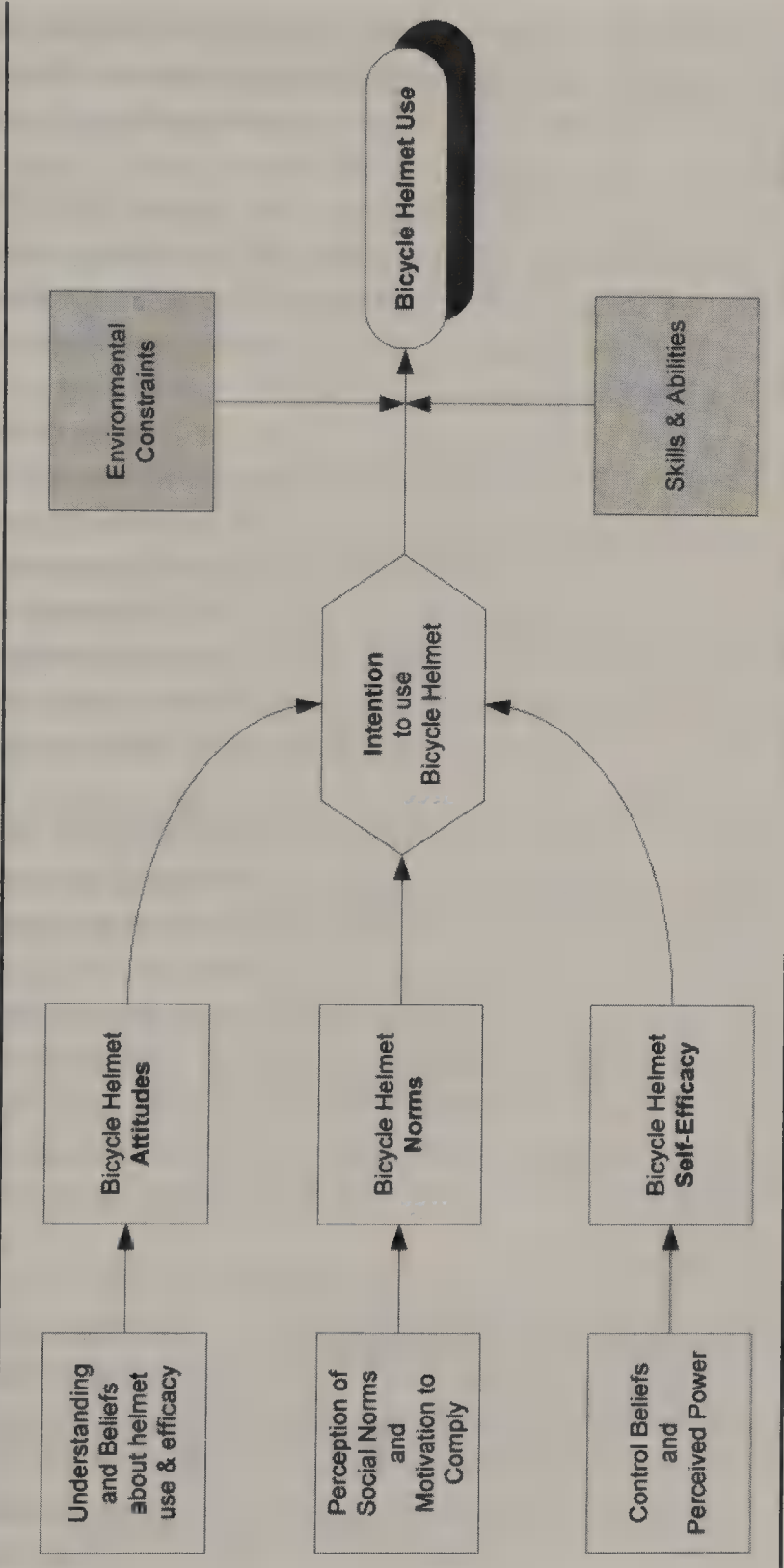
Public Education Campaign

Helmets were only used by ~2% of children riding bicycles in the mid-1980s. In order to increase helmet use, we sought to change a specific behavior. It is helpful in public health campaigns to clearly specify a desired behavior change: in this case, we wanted children to wear a helmet every time they rode a bike. There are a number of theoretical models that can be used to guide behavior change campaigns. Fishbein describes a useful model that integrates key concepts and features of the Health Belief Model, Social Cognitive Theory, Theory of Reasoned Action and Theory of Planned Behavior (Fishbein et al., 2001).

In this model, intention to perform a behavior is the best predictor of actual behavior, assuming the individual faces no constraints to performing the behavior (e.g., lack of resources to obtain a helmet) and no deficit in the skills needed to perform the behavior (Fishbein et al., 2001). Behavioral intention, in turn, is driven by knowledge and beliefs about the behavior and its expected outcomes, perceptions of social norms around the behavior, and the individual's sense of self-efficacy (see Figure 2). Through formative work with parents, including interviews and surveys, we decided to focus on three elements in the campaign: only helmet promotion

Figure 2

Model of Health Behavior (adapted from Fishbein et al., 2001)



as a target behavior; increasing the acceptance of helmet use by addressing attitudes and norms; and decreasing the cost of helmets.

Only helmet promotion: Many injury prevention campaigns falter because they are diffuse and do not offer specific advice. Many others require too many changes in behavior. We decided against offering advice about choosing an appropriate bike, specifying where kids should ride, or learning the rules of the road. Instead, we focused on the promotion of helmets and helmet use in a campaign directed primarily towards child cyclists.

Increasing the acceptance of helmets: One of the barriers to helmet use was that few individuals had even considered the use of helmets for bicycling. We used multiple venues to increase awareness, acceptance and positive beliefs about helmet wearing. Venues included pediatricians' offices, health departments, schools, PTAs, churches, day care centers, and other locations with contact between professionals and the public. We also used mass media in the form of radio and TV public service announcements. One of the most useful techniques was a newspaper story that featured a "victim," either someone injured because they were not wearing a helmet or someone who escaped without serious head injury because they were wearing a helmet.

Another barrier to overcome was the appearance of helmets. Helmets available at that time were not very attractive. Our approach to this issue was to get manufacturers involved. In essence, through our research, we helped to develop a market for the manufacturers. As sales increased, the manufacturers came out with more styles of helmets that were lighter, better looking, in different colors, and more attractive to children. Helmet wearing changed from being an oddity to being the norm.

Decreasing the costs of helmets: While helmets are now inexpensive this wasn't true when we first began. We wanted to offer a discount coupon to reduce the price of a helmet. We did not have funds to support this but were able to get the manufacturer, the distributor, and the retail store to each take a slight cut in profit. We were thus able to offer \$10 discount coupons. These coupons were attractive to parents and were very popular among the venues, such as doctor's

offices, which we used for distributing information about helmets. With the increase in sales distributors made more money—not less—because of the discounts

Evaluation

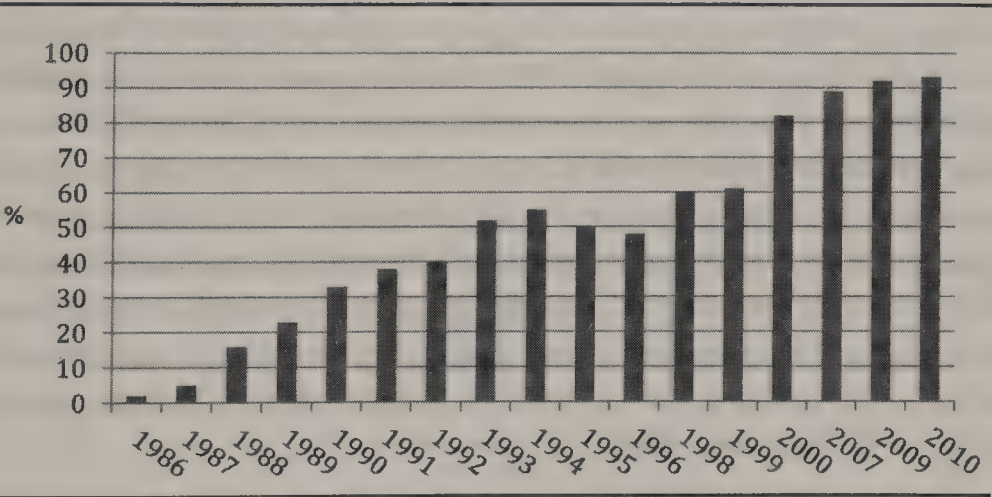
It was important to evaluate the program. Our funders wanted to know that what they were spending their money on was useful. Our community partners needed information to keep motivation high year after year. And we wanted to know because we are a prevention research organization.

The evaluation was simple. We randomly selected sites in the city where youth and adults bicycled, and we hired a group of college students to count bike riders and the proportion that were helmeted every year in late summer. It was inexpensive, objective and easy. We found that helmet use over time increased from 2% to about 90%. This was accompanied by a decrease in head injuries among children (Rivara et al., 1994) (See Figure 3).

Dissemination Nationally

The idea of helmet promotion, especially for children, made sense and our campaign was widely emulated. It was helped by publishing

Figure 3
Bicycle helmet use (cyclists of all ages) in Seattle, based on annual observations



effectiveness studies in leading journals, partnering with the American Academy of Pediatrics, developing “how-to” guides, positive coverage in major lay press outlets, and the concurrent expansion of the field of injury control as a whole through the efforts of the National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, and the SafeKids program. It was also encouraged by legislation in many jurisdictions.

Sudden Infant Death Syndrome

Context

Sudden infant death syndrome (SIDS) is defined as an infant death that cannot be explained after a thorough case investigation, including a scene investigation, autopsy, and review of the clinical history (Willinger, James, & Catz, 1991). Although SIDS remains an important cause of infant mortality, public health interventions to promote the supine sleep position are credited with an almost 50% decline in SIDS deaths between 1992 and 2006. The characteristics of the campaign to have babies sleep on their backs—“Back to Sleep”—provide another illustration of a successful public health prevention intervention.

The underlying etiology of SIDS is unknown, although various risk factors have been identified and causal hypotheses have been proposed. Small controlled studies of infants dying of SIDS were published in 1965 by Carpenter (Carpenter & Shaddick, 1965) and in 1970 by Froggatt (Froggatt, 1970). Both suggested that the prone sleeping position was associated with increased SIDS risk. However, the results were discounted in an era where prone sleeping position was the norm for infants, and widely believed by practitioners and parents to be safer for newborns. In addition, SIDS researchers were focused on identifying an underlying pathophysiologic mechanism and did not seem interested in pursuing epidemiologic associations that might attribute risk of death to actions taken by the caregivers (Dwyer & Ponsonby, 2009).

Observational Data on Supine Sleeping

In the late 1980s and early 1990s a series of studies conducted outside the United States renewed a focus on sleep position as a modifiable risk factor for SIDS. Observational data from Hong Kong suggested that SIDS was an uncommon occurrence in a population that routinely placed babies to sleep in a supine position (Davies, 1985). Campaigns to reduce prone sleeping were followed by a decline in SIDS mortality in both the Netherlands (de Jonge & Engelberts, 1985) and in Australia (Ponsonby, Dwyer, & Jones, 1992). In 1988, a review of 9 case control studies showed a protective effect of non-prone sleeping position (Beal, 1988).

In 1990, the *British Medical Journal* published a study of 67 cases and 93 controls, in which the relative odds of SIDS death associated with “usually” sleeping prone was estimated to be 8.8 (95% confidence interval [CI] = 7.0–11.0) (Fleming et al., 1990). The following year, investigators in New Zealand reported an odds ratio of 3.53 (95%CI = 2.26–5.54) (Mitchell et al., 1991), and a prospective cohort study from Australia reported a risk ratio of 4.5 (95%CI = 1.3–15.4) for infants typically placed to sleep in the prone position (Dwyer, Ponsonby, Newman, & Gibbons, 1991).

AAP Task Force Recommendation

In 1991, more than 4,500 infants died of SIDS in the United States. With international evidence of a strong and consistent association between SIDS and infant sleep position, the American Academy of Pediatrics (AAP) commissioned a *Task Force on Infant Sleep Position and SIDS* to examine the available evidence (Kattwinkle, 2012). Concurrently, the National Institute of Child Health and Human Development (NICHD)—which had been charged to take the lead in SIDS research by the Sudden Infant Death Act of 1974—convened a conference of health professionals from the UK, Australia, New Zealand, and the Netherlands to review the epidemiologic evidence available.

Despite the experience from abroad, participants did not reach a consensus for a public health recommendation on infant sleep position. This was in part due to differences in the epidemiologic context of infant sleep; at that time, only 30% of British infants were placed to sleep prone whereas as many as 75% of U.S. infants slept in that position. Nevertheless, SIDS mortality was *lower* in the United States than in other Western European or English-speaking countries. The role of other putative risk factors, such as maternal smoking, bedding and central heating was also debated as differences across countries were noted in all these factors (Willinger, 1995). In addition, pediatricians and hospital nursery staff harbored strong concerns about perceived risks associated with supine sleeping, including aspiration of vomitus and developmental delays. Absent data on the *safety* of non-prone sleeping and without a pathophysiologic mechanism to explain the potential benefit, the public health authorities acted to create a research agenda that would inform subsequent policy decisions.

By April, 1992, the AAP Task Force had concluded its review of available evidence on risk factors and the results of campaigns to promote non-prone sleep positions. The AAP published a recommendation that babies be placed to sleep on their back or side to reduce the risk of SIDS. (Kattwinkel, Brooks, & Myerberg, 1992) In the technical report, the Task Force noted:

Although prospective randomized clinical trials have not been performed, the weight of evidence implicates the prone position as a significant risk factor for SIDS. There is some concern that many of the studies have come from countries and regions with SIDS rates which are significantly higher than that of the United States. Nevertheless, the consistency of the results from a variety of countries makes it more likely that the data should be applicable to this country as well. In addition for the healthy infant, there appears to be little hazard associated with the lateral or supine positions (Kattwinkel et al., 1992).

Back to Sleep Campaign

By early 1994, when the NICHD, the CDC and other federal agencies convened a scientific panel to review research data (Willinger, 2012) and the results of public health campaigns (Dwyer, Ponsonby, Blizzard, Newman, & Cochrane, 1995), there was judged to be sufficient evidence to promote the AAP task force recommendation (Willinger, Hoffman, & Hartford, 1994). Despite the initial publicity around the AAP's recommendation, little formal promotion had been undertaken and data suggested that prone sleeping position had declined only slightly.

In planning the "Back to Sleep" campaign, some important practical decisions were made. The campaign was overseen by the US Public Health Service, the AAP Task Force, the Association of SIDS and Infant Mortality Programs (ASIP) and the SIDS Alliance, an advocacy group formed by families. Having a small number of core partners allowed campaign planning to move rapidly as messages and strategies required clearance by fewer agencies. In addition, it insured that messaging was tightly coordinated between the federal agencies and the AAP, an important factor in maintaining credibility and consistency. Finally, the NICHD leveraged its federal connections to piggyback the campaign on existing resources: agency contact lists were used to disseminate materials and a call-center was repurposed as a "1-800" information clearinghouse.

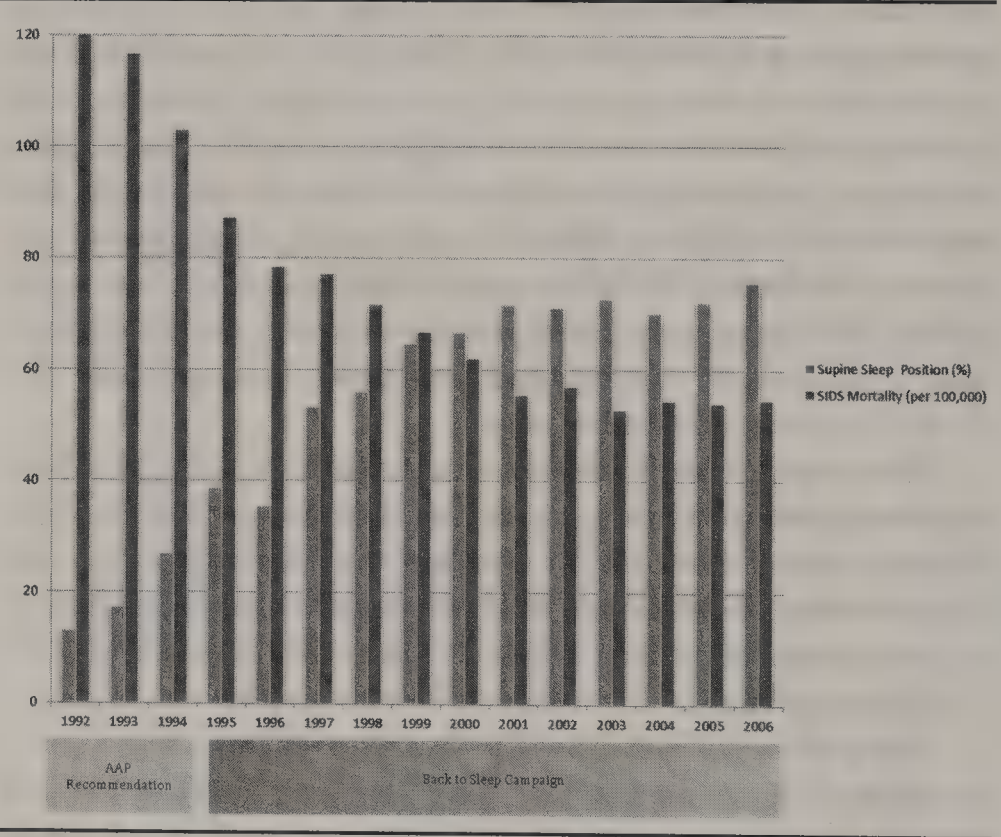
The campaign itself included mass mailings targeting healthcare practitioners who came into contact with infants and their caregivers. Public service announcements were sent to 6,700 radio stations and 1,000 television broadcasters with a message to caregivers that placing infants on their backs to sleep could reduce the risk of SIDS (Willinger, 2012).

Tipper Gore, wife of then Vice President Al Gore, lent visibility to the campaign as its national spokesperson in 1997. Additional reach and impact were secured through partnership with Gerber Baby Products. The company included "Back to Sleep" messaging on boxes of infant cereal and sent a mailing with this information to 2.7 million new parents over a 12-month period. Similarly, Johnson &

Johnson became involved and included “Back to Sleep” materials in their “First Aid Kit for New Parents.” And, in 1999, Pampers, through its Parenting Institute, joined the campaign by delivering “Back to Sleep” materials to professional and printing the campaign message on newborn diapers and packages in multiple languages.

The results of the campaign can be seen in Figure 4. Over a 15-year period, the proportion of infants sleeping in the supine position rose from 13% to 75%. At the same time, SIDS mortality in the United States declined by more than 50%.

Figure 4
U.S. SIDS mortality plotted with prevalence of supine sleep position in U.S. infants, 1992-2006



Discussion

There are a number of important lessons from the stories of the bicycle helmet and “Back to Sleep” campaigns that can be generalized to the problem of child maltreatment.

Establish a strong scientific basis for intervention. The evidence-base for the bicycle helmet intervention was strong and published in prestigious journals. This gave credibility to the promotion of helmets. Helmet manufacturers also made use of these data, and some even printed the key statistic—that helmets decrease the risk of brain injury by 85%—on the product box itself. The fact that helmets appeared to be effective for bicyclists of all ages and under all crash circumstances was enormously important in the campaign.

The success of the “Back to Sleep” campaign in the reduction of SIDS mortality was also an important victory for public health in the United States. In this case, despite absence of a clear pathophysiologic understanding of the cause of SIDS, careful attention to epidemiologic evidence suggested an intervention—the supine sleeping position—that was promoted through the coordinated efforts of organized medicine, advocacy groups and various governmental agencies. Federally sponsored studies allowed campaign planners to anticipate the attitudes, beliefs and objections of practice communities and to answer these with data on both safety and efficacy.

Focus on a single, simple intervention. To prevent bicycle-related TBI, the intervention was use of a helmet. It was not to get people to bicycle more safely, to separate bikes from motor vehicles, or to get car drivers to be more aware of bicyclists on the road. Having a clear and specific behavior change goal made it practical to offer messaging designed to change beliefs, attitude and norms and allowed resources to be concentrated on the subsidy of a single, specific product.

Similarly, “Back to Sleep” is a simple message with a simple behavioral outcome: “put your infant on her back to sleep every time.” Although there are a number of other risk factors that could be targeted in SIDS reduction, such as maternal smoking, unsafe bedding and feeding practices, the campaign chose to focus on a single message. A more

complex message around safe sleep environments and practices has moved into the campaign as it has matured, but changing those associated risk factors has proven to be much more challenging. The impact of the initial campaign would have been substantially diluted if careful focus on the “Back to Sleep” message had been lost early in the effort.

Make the intervention inexpensive. A key element of the bicycle helmet campaign was to have helmets be relatively inexpensive and widely available. Essentially, the health education program created a market for bicycle helmets, and the manufacturers responded by mass producing helmets thereby reducing the costs, making them more attractive so that all would wear them, and selling them through a wide variety of retail sites, not just bicycle specialty stores. There was no cost to the SIDS intervention.

Consider a universal campaign. Although it was possible to identify sociodemographic groups at higher risk for SIDS mortality, campaign planners made an explicit decision to “go national and go broad”(Willinger, 2012). All parents were targeted, not just those in high risk groups. The message was widely distributed through multiple media, from multiple sources (physicians, nursery staff, child-care providers, WIC offices) and in a variety of contexts. A universal campaign was more costly but also, likely, more impactful at a population level.

One explicit goal of both campaigns was to change norms around a specific health behavior. Restricting messaging to only higher risk groups might stigmatize those groups or lead to lower risk populations discounting the relevance of the message to them. Instead, a universal approach that stressed the applicability of these interventions to all individuals worked to shift cultural perceptions.

The downside, of course, is that universal campaigns can act to worsen disparities in health outcome if intervention uptake or effectiveness differs between racial or ethnic subpopulations. For example, disparities in SIDS mortality have persisted, and in some cases worsened, in the wake of the “Back to Sleep” campaign. This is not because “Back to Sleep” increased SIDS risk in any subpopulation but rather because infant sleep practices have been both harder to

change and less likely to be strongly associated with SIDS risk in certain ethnic subpopulations.

Have perseverance. Both the helmet intervention and the “Back to Sleep” campaign were conducted over a period of many years. The use of bicycle helmets required a shift in cultural norms from one in which it was odd to wear a helmet to one in which helmet use was the normal and “right” thing to do. Changing parent, practitioner and community norms around infant sleep practices is a daunting task that required a single-minded focus on repeated, consistent messaging. Shifts in norms simply do not occur rapidly. Public health campaigns sometimes falter because they are either designed or funded as short lived efforts rather than protracted campaigns over many years.

Seek out industry partnerships. Partnerships with firms in the baby products industry proved to be a useful strategy for widely disseminating the “Back to Sleep” message to a target audience. In addition, the familiarity of the campaign logo on commonly used baby products moved the message from the healthcare and public health domain into wider circulation as a cultural norm. Synergy between the simple, life-saving behaviors advocated, the positive preventive message of the campaign and the public relations efforts of industry made these partnerships an easy sell.

Helmet manufacturers had a clear stake in the outcome of helmet effectiveness research. While careful safeguards must be maintained to prevent industry funding from skewing research results, it is very reasonable to work with the commercial sector to publicize and disseminate completed research findings. In the helmet campaign, distributors were also willing to provide discount coupons to remove financial barriers to helmet acquisition, realizing a benefit in total sales volume as norms evolved and demand increased.

Monitor results using sound evaluation methods. The bicycle helmet campaign required a robust (but inexpensive) evaluation to guarantee its replication and success. Importantly, the campaign measured not only uptake of the desired behavior (helmet use) but also a corresponding decrement in bicycle related TBI. Perhaps in part because of the data required to prod the U.S. practice and public health communities

into accepting a supine sleep position intervention, the *Back to Sleep* campaign and its sponsoring partners also started with a robust set of representative national and international data relevant to the topic. The impact of the campaign could be traced through its presumed mechanism of action by measuring changes in infant sleep practice and in SIDS mortality over time. This ongoing evaluation was crucial in answering skeptics and important in building enthusiasm for the effort.

Implications for Future Public Health Campaigns

Examination of successes in public health, like the bicycle helmet or "Back to Sleep" campaigns, can suggest priorities in the design and execution of future interventions. Child maltreatment prevention, for example, may be informed by lessons learned in previous work as well as by core principles of evidence based public health and implementation science.

Surveillance. Most public health activities begin with data collection. Population-based data systems can be interrogated to determine patterns and trends in specific outcomes. In this manner, surveillance is a valued component of injury prevention and health promotion programs. However, surveillance, *per se*, does not improve the public health. As an activity surveillance must support institutions or agencies with the will and resources to act on its findings.

For many health campaigns it is also important to capture intermediate outcomes in addition to total mortality or morbidity. For example, the initial AAP recommendation about supine sleeping was followed by only a modest reduction in SIDS incidence. Using data from the National Infant Sleep Position Survey (an intermediate outcome) it was evident that the recommendation, by itself, had not meaningfully changed infant sleep position in the United States. This ability to examine the putative causal chain of intervention effectiveness bolstered the decision to mount a multidisciplinary, national "Back to Sleep" promotion campaign. For surveillance to be most useful, it should include elements of behavioral change related to the outcome of interest.

One model for child maltreatment surveillance is the National Violent Death Reporting System (NVDRS). This is a state based system combining information on all violent deaths in a jurisdiction from medical examiner reports, police data and toxicology information (Hemenway, Barber, Gallagher, & Azrael, 2009). It has proven to be an effective tool for surveillance of violent deaths, including deaths from child maltreatment (Bennett et al., 2006; Fujiwara, Barber, Schaechter, & Hemenway, 2009). A similar system for child maltreatment could combine information from CPS reports, police investigations and medical evaluations. Additional information could be added from the multistate Child Death Review Case Reporting System which captures findings from the multidisciplinary review of all unexpected child fatalities in a jurisdiction ("Child Death Review Case Reporting System," 2012). The use of rich and in-depth data available from this source has been recently illustrated in an analysis of behaviors associated with sudden and unexpected sleep related infant deaths (Schnitzer, Covington, & Dykstra, 2012).

Prevention Focus: Large improvements in health over the last century have occurred primarily through interventions at the population level. This is not to discount the importance of effective treatments at the individual level, but the health of the public is more easily and feasibly improved at the population level. Tobacco kills 400,000 people annually in the United States. While there are effective smoking cessation interventions at the individual level, the largest decrease in morbidity and mortality from smoking has been seen at the population-level through efforts to prevent smoking initiation (Pierce, White, & Emery, 2012).

The examples given in this article also demonstrate the impact of population-based approaches. Treatment of traumatic brain injury is still in a rudimentary stage and long-term outcomes of individuals with moderate and severe brain injury are not optimal. Prevention of head injuries, such as those due to bicycling, is feasible and effective on a large scale. For SIDS, no intervention for the affected child is possible. However, a population level approach changing the way in which babies sleep has been strikingly successful.

Reach and effectiveness: The summative impact of interventions applied across a population can be estimated by considering the *reach* of the intervention (the proportion of the population who are candidates for the intervention and the proportion of those to whom a program will deliver the intervention) along with the *effectiveness* of the intervention as delivered. Interventions are often evaluated in controlled studies which constrain the characteristics of the individuals enrolled, provide resources to implementation staff and thus estimate the best potential outcome of the program. When implemented in a real-world setting, with a broader variety of recipients and fewer implementation resources, the effectiveness of such programs is diminished. Some interventions, with relatively modest effectiveness but wide reach and applicability, will have a greater net population impact than highly effective programs that cannot be easily scaled or generalized (Koepsell, Zatzick, & Rivara, 2011).

Conclusions

The same high-reach universal approach which was successful for helmet promotion and SIDS reduction can be taken for child maltreatment. Evidence-based interventions to *treat* abusive parents and their maltreated children are scarce, expensive and will only affect a small portion of the population. Furthermore, screening in an attempt to identify high-risk families on which to target individual-level interventions is not sensitive enough or specific enough to make this a viable option (Johnston, 2012). Universal, population based approaches are needed in order to affect the incidence of child maltreatment. These interventions may include home visiting, community-wide educational campaigns on shaking, early educational programs to improve long-term academic success, and interventions to improve parenting skills across the population.

References

- Beal, S. (1988). Sleeping position and SIDS. *The Lancet*, 2(8609), 512.
- Bennett, M. D., Jr., Hall, J., Frazier, L., Jr., Patel, N., Barker, L., & Shaw, K. (2006). Homicide of children aged 0-4 years, 2003-04: results from the National Violent Death Reporting System. *Injury Prevention*, 12(Suppl. 2), ii39-ii43.
- Carpenter, R. G., & Shaddick, C. W. (1965). Role of Infection, Suffocation, and Bottle-Feeding in Cot Death; an Analysis of Some Factors in the Histories of 110 Cases and Their Controls. *British Journal of Preventative and Social Medicine*, 19(1), 1-7.
- Child Death Review Case Reporting System. (2012). Retrieved from <http://www.child-deathreview.org/reporting.htm>.
- Davies, D. P. (1985). Cot death in Hong Kong: a rare problem? *The Lancet*, 2(8468), 1346-1349.
- de Jonge, G. A., & Engelberts, A. C. (1985). Cot deaths and sleeping position. *The Lancet*, 2, 1149-1150.
- Dwyer, T., & Ponsonby, A. L. (2009). Sudden infant death syndrome and prone sleeping position. *Annals of Epidemiology*, 19(4), 245-249.
- Dwyer, T., Ponsonby, A. L., Blizzard, L., Newman, N. M., & Cochrane, J. A. (1995). The contribution of changes in the prevalence of prone sleeping position to the decline in sudden infant death syndrome in Tasmania. *Journal of the American Medical Association*, 273(10), 783-789.
- Dwyer, T., Ponsonby, A. L., Newman, N. M., & Gibbons, L. E. (1991). Prospective cohort study of prone sleeping position and sudden infant death syndrome. *The Lancet*, 337(8752), 1244-1247.
- Fishbein, M., Triandis, H. C., Kanfer, F. H., Becker, M., Middlestadt, S. E., & Eichler, A. (2001). Factors influencing behavior and behavior change. In A. Baum, T. A. Revenson & J. E. Singer (Eds.), *Handbook of Health Psychology* (pp. 3-16). Mahwah, NJ: Lawrence Erlbaum Associates.
- Fleming, P. J., Gilbert, R., Azaz, Y., Berry, P. J., Rudd, P. T., Stewart, A., & Hall, E. (1990). Interaction between bedding and sleeping position in the sudden infant death syndrome: a population based case-control study. *BMJ*, 301(6743), 85-89.

- Frogatt, P. (1970). Epidemiologic aspects of Northern Ireland study. In A. B. Bergman, B. J. Beckwith & C. G. Ray (Eds.), *Sudden Infant Death Syndrome* (pp. 32-46). Seattle: University of Washington Press.
- Fujiwara, T., Barber, C., Schaechter, J., & Hemenway, D. (2009). Characteristics of infant homicides: findings from a U.S. multisite reporting system. *Pediatrics*, 124(2), e210-217.
- Haddon, W. J., Valien, P., McCarroll, J. R., & Umberger, C. J. (1961). A controlled investigation of the characteristics of adult pedestrians fatally injured by motor vehicles in Manhattan. *Journal of Chronic Diseases*, 15, 655-678.
- Hemenway, D., Barber, C. W., Gallagher, S. S., & Azrael, D. R. (2009). Creating a National Violent Death Reporting System: a successful beginning. *American Journal of Preventative Medicine*, 37(1), 68-71.
- Johnston, B. D. (2012). Targeting 'high-risk' individuals. *Injury Prevention*, 18(3), 149.
- Kattwinkel, J., Brooks, J., & Myerberg, D. (1992). American Academy of Pediatrics, Task Force on Infant Positioning and SIDS. Positioning and SIDS. *Pediatrics*, 89, 1120-1126.
- Kellermann, A. L., Rivara, F. P., Rushforth, N. B., & al, e. (1993). Gun ownership as a risk factor for homicide in the home. *New England Journal of Medicine*, 329, 1084-1091.
- Kellermann, A. L., Rivara, F. P., Somes, G., Reay, D. T., Francisco, J., Banton, J. G., Prodzinski, B., Flinger, C., & Hackman, B. (1992). Suicide in the home in relation to gun ownership. *New England Journal of Medicine*, 327(7), 467-472.
- Kellermann, A. L., Westphal, L., Fischer, L., & Harvard, B. (1995). Weapon involvement in home invasion crimes. *Journal of the American Medical Association*, 273(22), 1759-1762.
- Koepsell, T. D., Zatzick, D. F., & Rivara, F. P. (2011). Estimating the population impact of preventive interventions from randomized trials. *American Journal of Preventative Medicine*, 40(2), 191-198.
- Mitchell, E. A., Scragg, R., Stewart, A. W., Becroft, D. M., Taylor, B. J., Ford, R. P., Hassall, I. B., Barry, D. M., Allen, E. M., Roberts, A. P. (1991). Results from the first year of the New Zealand cot death study. *New Zealand Medical Journal*, 104(906), 71-76.
- Pierce, J. P., White, V. M., & Emery, S. L. What public health strategies are needed to reduce smoking initiation? *Tob Control*, 21(2), 258-264.

- Ponsonby, A. L., Dwyer, T., & Jones, M. E. (1992). Sudden infant death syndrome: seasonality and a biphasic model of pathogenesis. *Journal of Epidemiological & Community Health*, 46(1), 33-37.
- Rivara, F. P., Thompson, D. C., Patterson, M. Q., & Thompson, R. S. (1998). Prevention of bicycle-related injuries: helmets, education, and legislation. *Annual Review of Public Health*, 19, 293-318.
- Rivara, F. P., Thompson, D. C., Thompson, R. S., Rogers, L. W., Alexander, B., Felix, D., & Bergman, A. B. (1994). The Seattle children's bicycle helmet campaign: changes in helmet use and head injury admissions. *Pediatrics*, 93, 567-569.
- Schnitzer, P. G., Covington, T. M., & Dykstra, H. K. (2012). Sudden unexpected infant deaths: sleep environment and circumstances. *American Journal of Public Health*, 102(6), 1204-1212.
- Thompson, D., Nunn, M. E., Thompson, R. S., & Rivara, F. P. (1996). Effectiveness of bicycle safety helmets in preventing serious facial injury. *Journal of the American Medical Association*, 276(24), 1974-1975.
- Thompson, D. C., Rivara, F. P., & Thompson, R. S. (1996). Effectiveness of bicycle safety helmets in preventing head injuries. A case-control study. *Journal of the American Medical Association*, 276(24), 1968-1973.
- Thompson, R. S., Rivara, F. P., & Thompson, D. C. (1989). A case-control study of the effectiveness of bicycle safety helmets. *New England Journal of Medicine*, 320, 1361-1367.
- Willinger, M. (1995). SIDS prevention. *Pediatric Annuals*, 24(7), 358-364.
- Willinger, M. (2012, February 16, 2012). Personal communication.
- Willinger, M., Hoffman, H. J., & Hartford, R. B. (1994). Infant sleep position and risk for sudden infant death syndrome: report of meeting held January 13 and 14, 1994, National Institutes of Health, Bethesda, MD. *Pediatrics*, 93(5), 814-819.
- Willinger, M., James, L. S., & Catz, C. (1991). Defining the sudden infant death syndrome (SIDS): deliberations of an expert panel convened by the National Institute of Child Health and Human Development. *Pediatric Pathology*, 11(5), 677-684.

Section 2: ***Improving Child Protection***

Safety and Risk Assessment Frameworks: Overview and Implications for Child Maltreatment Fatalities

Peter J. Pecora

Casey Family Programs

Zeinab Chahine

Casey Family Programs

J. Christopher Graham

University of Washington

This article highlights current models used in child protection to assess safety and risk, and discusses implications for child maltreatment fatalities. The authors advance that current risk and safety practice approaches were not designed to accurately estimate the likelihood of low base-rate phenomena and have not been empirically tested in their ability to predict or prevent severe or fatal child maltreatment. They advance that, regardless of the ultimate effectiveness of safety and risk tools, competent assessment and decision-making in child protection depend on sound professional judgment and a comprehensive systemic approach that transcends the use of specific tools.

Acknowledgements: This article draws from conversations and notes from a key set of colleagues, namely Theresa Costello, Raelene Freitag, Dan Koziolk, Dan McCormick, Eileen Munro, Alan Puckett, Andrew Turnell, and Dee Wilson.

At least since the case of Little Mary Ellen in New York City in 1874 (Shelman & Lazoritz, 2005), issues surrounding severe child maltreatment have been a major concern in the United States. Approximately 3.4 million reports of child maltreatment were made to child welfare agencies in 2011. The victimization rate for FFY 2011 was 9.1 per 1,000 children (U.S. Department of Health and Human Services, or DHHS, 2012). Of those 676,569 substantiated (unduplicated count) victims, an estimated 1,570 children died from abuse and neglect during federal fiscal year 2011 (DHHS, 2012).

Child Protective Services (CPS) agencies are charged with investigating or assessing these reports of maltreatment and intervening to protect children from further maltreatment. Safety and risk assessment are central to decisionmaking regarding what actions should be taken to protect children from maltreatment (White & Walsh, 2006). They are the “gateways” of CPS practice, upon which most important decisions are predicated. Thus, effective safety and risk assessments depend on the ability of CPS professionals to obtain accurate and timely factual information, as well as processes that promote critical analysis of that available information.

Fortunately, knowledge about what works in child protection has increased over time, in part because of research related to risk factors and characteristics of families whose children have died due to maltreatment or suffered non-accidental inflicted severe head injuries (Berger, Fromkin & Stutz, 2011; Puckett, 2010). For example, it is well understood that babies and other very young children are at highly elevated risk of a maltreatment-related fatality: in 2011, four-fifths (81.6%) of all child maltreatment fatalities were children younger than four years old (DHHS, 2012). Nevertheless, our understanding of the causal processes resulting in serious injuries or death related to maltreatment is incomplete.

As an expert in the field once stated, “working in child protection is not rocket science, but is harder.” Three types of problems have been identified: (1) simple problems, (2) complicated problems, and (3) complex problems. Sending a rocket to the moon is considered to be only a “complicated problem” because once the steps necessary

to send a rocket to the moon are specified, the steps can be replicated with precision (Gawande, 2009). Decisions about complex problems are characterized by ambiguity, inconsistent goals, complexity of decisions and systems, severe time constraints, and inherent unpredictability (Dörner & Wearing, 1995; Funke, 1991).

While there are situations in child protection in which routine processes have been well established, there are many aspects of CPS where precise replication is difficult. For instance, safety and risk assessment tools generally contain discrete factors, yet it is the interactions of these factors—such as parent-child interactions or the interactions of risk and safety factors from disparate domains—that are likely to figure in the causal processes leading to lethal assaults of young children. Hence, there are limits to the ability of professionals, no matter how competent, to assess the safety of a child or to predict the likelihood of future maltreatment. Decisionmaking is subject to errors related to “false negatives” (risk or safety threat is thought not to be present but children are maltreated) and “false positives” (risk or safety threat is identified but children are not maltreated). Supporting a family to safely remain together or deciding to remove a child from a family are critical decisions, are subject to these types of errors, and potentially can have life-and-death consequences.

CPS systems have increasingly adopted assessment tools to improve safety and risk decisionmaking in child protection cases. This article highlights current models used in child protection to assess safety and risk, and discusses implications of these approaches for predicting or estimating the likelihood of severe and fatal child maltreatment.

Overview of Safety and Risk Approaches

There are several commonly used approaches to safety and risk assessment currently being applied in the field of child welfare in the United States. There are consensus-based safety assessment tools such as those developed by Action for Child Protection (ACTION for Child Protection, undated) and individual states, and

there are evidence-based risk assessment tools such as those in the Structured Decisionmaking® (SDM) system developed by the Children's Research Center (Children's Research Center, 1999; Wagner & Bogie, 2010). More recently, an approach called Signs of Safety® (SofS) is being implemented in several states (Turnell, 2012), which also has a well-defined approach to mapping harm, danger, and complicating factors.

Each of the three methods summarized uses slightly different conceptualizations of important concepts related to danger, safety, risk, need, and complicating factors. In any given jurisdiction, clarity about these terms and implications for decisionmaking is vital. Unfortunately, there is not as yet universal agreement on these terms or concepts.

The intent of this article is *not* to compare and contrast the three approaches, nor argue for use of one approach over the others. None of the approaches are designed *specifically* to prevent severe maltreatment or fatalities, but to help identify immediate safety threats, estimate the risk of child maltreatment, and safeguard child safety across a broad range of situations. But one key question for child welfare is whether any or all of these approaches can be effective in preventing the most severe occurrences of child maltreatment. The next sections of the article describe key features of each model before we discuss implications for child maltreatment fatalities.

The ACTION for Child Protection SAFE Model

The ACTION for Child Protection SAFE model is a decisionmaking support tool that structures the assessment of danger threats, child vulnerability and caregiver protective capacities to arrive at a decision about whether a child is safe or unsafe. A unique feature of the ACTION framework is the clear distinction between “present danger” (*present danger is an immediate, significant and clearly observable threat to a child occurring in the present*), and “impending danger” (*impending danger refers to threatening family conditions that are not obvious or active or occurring in your presence but are out of control and likely to have a severe effect on a child in the near future*). This distinction

provides a clear focus for the decision maker at first contact with the family (*is the child unsafe right now and does something have to be done before the caseworker leaves the home?*), and also provides guidance as the caseworker proceeds through her investigation and learns more about the daily life of the family, which may also reveal current safety threats or emotional and physical harm which has already occurred.

Addressing safety threats is a key concern, which requires the caseworker to develop a plan to control the behaviors and conditions which are often seen in child fatality and near-fatality cases, such as violent behavior, incapacitating substance abuse, extreme environmental hazards and serious mental health conditions.

The SAFE model is focused strictly on safety assessment, safety management and enhancing the caregiver protective capacity that results in improved child safety. This safety-focused intervention approach may be embraced by agencies which want to prioritize or serve only families in which children are currently assessed as unsafe. The safety focus is maintained through the life of the case so that all key decisions are safety-based: screening, response time, case opening, removal, visitation, reunification, and case closure (ACTION for Child Protection, undated). This approach facilitates thorough collection of information through the establishment of specific information collection standards in six domains: child maltreatment; surrounding circumstances of the maltreatment; child functioning; general parenting; parenting discipline; and adult functioning (personal communication, Theresa Costello, January 10, 2013).

Structured Decisionmaking (SDM)

The Structured Decisionmaking (SDM) system is a decision support system that provides standardized and tailored assessments for key decision points in the life of a case. It is designed to help guide these key decisions, and uses assessments designed to help increase the consistency and accuracy of decisions.

A distinguishing feature of the SDM system is the amount of research and evaluation data available about these tools. The SDM risk assessment is created through an actuarial research method.

Other SDM assessments begin as consensus-based tools or a combination of actuarial and consensus-based tools, and then an evaluation is conducted to test and improve their reliability and validity. Importantly, an organization that uses the SDM system is directing its scarce resources toward the highest risk families, and those families where there is current danger.

While the SDM system is designed to reduce recurrence of any future abuse or neglect by targeting the highest risk families for services, there are several ways that the system can be expected to reduce severe incidents. These include: (1) response priority assessment when children are most likely to be unsafe, (2) clarity about the threshold for danger, (3) use of a checklist to assure that dangers not mentioned in the CPS referral are identified and assessed, (4) identification of children who have a substantially higher probability of future maltreatment and when the family can continue safely on their own, and (5) reunification assessment.

Of course, no set of assessment tools can keep children safe merely by use of checklists or ratings. The SDM system is designed to be used in the context of strong social work practices, including relationship building, good interviewing skills, participatory assessment and planning with parents.

The results of each SDM assessment tool should be reviewed using professional judgment and consideration of a family's readiness to participate in specific services. Assessment tools are not a substitute for caseworker knowledge in areas such as trauma, mental health, substance abuse, child development and building on family strengths. Assessments alone will not keep a child safe. However, having reliable, valid and equitable assessments to inform professional judgment is prudent practice. (Children's Research Center, 1999; Personal Communication, Raelene Freitag, January 25, 2013).

Signs of Safety®

One of the more recent efforts to improve child welfare practice with families is Signs of Safety, a strengths-based, safety-focused approach to CPS. The approach was created by Andrew Turnell, social worker

and family therapist, and Steve Edwards, Child Protection practitioner, in partnership with 150 Child Protection caseworkers in Western Australia during the 1990s. The approach has evolved over time based on the experiences and feedback of Child Protection practitioners. It is currently being implemented in at least 32 jurisdictions in 11 countries around the world (Turnell, 2012).

Signs of Safety draws on brief solution-based casework, and was designed to give CPS practitioners a framework for engaging all persons involved in a CPS case, including professionals, family members and children. The primary goal for Signs of Safety is the safety of children, which is viewed as a continuum that can be scaled. Turnell identifies three core principles of the Signs of Safety approach (Western Australian Department for Child Protection, 2011):

1. Establishing constructive working relationships between professionals and family members, and between professionals themselves.
2. Engaging in critical thinking and maintaining a position of inquiry.
3. Staying grounded in the everyday work of CPS practitioners.

Signs of Safety uses an assessment framework that involves “mapping” four components with families: (1) harm, danger, complicating factors, and worries, (2) existing strengths and safety factors, (3) agency and family goals for regarding future child safety and (4) a safety judgment. Practitioners complete the map with the family so it is understandable to them. It is a way to help both practitioners and family members think through a situation involving risk of child maltreatment, and is used to guide the case from beginning to end. Signs of Safety also offers concrete tools and strategies for engaging children in the risk assessment and safety planning process. Signs of Safety is a guided professional judgment approach to risk and safety based on caseworker/family interactions, in contrast to an actuarial model that assesses the presence or absence of specific risk factors. Some states and counties utilize a combination of Signs of Safety and SDM.

Safety and Risk Assessment Approaches: Implications for Severe Child Maltreatment Injuries and Fatalities

Balancing Intuitive and Rational Decisionmaking

Effective safety and risk assessment in child protection depends on balancing intuitive and rational decisionmaking. One of the major strengths of safety and risk approaches is that they support the notion that there is value in a *systematic* approach and rationality to gathering and analyzing information for safety planning.

Much recent research shows that while intuitive decisions can be (and for highly experienced experts, often are) accurate, there are dangers to relying too exclusively on intuition (Khaneman, 2011). Conversely, algorithmic formulas for decisionmaking can improve certain types of decisions, but there are dangers in such systematic approaches, such as not incorporating clinical overrides in situations where the case circumstances require that special factors be considered. Khaneman (2011) provides clear examples of how vulnerable *intuition* is to biases of various kinds, and yet he endorses the use of intuitive pattern recognition that Klein (1998, 2009) advocates.

According to Eileen Munro, a prominent British expert in child protection, “It is unrealistic to suppose that we could eliminate the intuitive element. Risk assessment instruments, for example, can be invaluable aids but they cannot provide a satisfactory replacement for professional judgment. The statistical problems of predicting rare events combined with the limited knowledge of predictive factors for abuse mean that any instrument, used in an actuarial manner, will produce an unacceptably high level of inaccuracy” (Munro, 1999, p.10). To the extent that accurate assessment and sound decisionmaking can prevent severe child maltreatment injuries and fatalities, the authors believe that both intuitive pattern recognition (Klein, 1998, 2009) and analytic decisionmaking are necessary.

Thus assessment tools can also act as check on our intuitive judgments, exposing the product of intuitive reasoning to the rigorous scrutiny of analytic reasoning, and enabling us to consider if we haven’t forgotten key information—especially information that does

not corroborate our current opinion of the family (“slow thinking”). But *intuitive decisionmaking* (fast thinking) tends to jump to conclusions based on whatever information is available. Khaneman describes this tendency as *What You See Is All There Is* (WYSATI). According to Khaneman the set of mental operations responsible for intuitive judgments “is radically insensitive to the quantity and quality of information.” And these mental processes, of which intuition is a part, are always on—*there is no off button*. Intuition cannot be banished from decisionmaking, regardless of what analytically minded experts seem to think. But intuition can be trained to be expert—this is Klein’s main point. Practitioners in any field come to recognize patterns by being repeatedly exposed to patterns which become intelligible as they are presented and explained.

So some safety and risk assessment approaches are trying to bring slow thinking and rationality to intuition (i.e., our natural predisposition to reach a judgment quickly). The best assessment methods will train, discipline, and/or structure thinking so that when practitioners make fast decisions, they are made by looking at the most relevant issues, and can be explicated clearly if necessary (Andrew Turnell, personal communication, February 19, 2013; Turnell & Edwards, 1999).

Consideration of the Broader Context

However, there are limitations to some of the approaches for assessing safety and risk. Practice theory matters. Baumann, Law, Sheets, Reid, and Graham (2005) argue that the *broader context* in which judgments are made may not be adequately represented by actuarial models when they use lists of risk factors but lack a theoretical approach. Baumann and colleagues, 2011, advocate for an approach that “builds on the complementary strengths of empirically-based and human information processing, with the aim of achieving through this synthetic approach better assessments of risk than either empirical or human judgments could arrive at without the interactive support of the other” (p. 10).

In addition, the most articulate analysis of the deficiencies of actuarial tools and checklists in all fields has emerged from

naturalistic studies of firefighters, nurses and chess masters, describing what experts actually do under time pressures or when faced with ambiguity and complexity. In these circumstances (which are also common in CPS), experts depend on *holistic recognition of patterns that have meaning for action* (Klein, 1998). This is one possible reason why statistically-based tools are rarely used as designed. These tools do not help staff build what is termed *strategic expertise*, and they are applicable to a narrow range of decisions, mainly targeting for services. Nevertheless, these risk estimation tools have value, as will be discussed later.

Taking the broader systemic context into account also is important because CPS decisionmaking does not occur only in a context of child and family risk factors, but also within an investigative and organizational context (Baumann, Dalglish, Fluke, & Kern, 2011). As pointed out in the Texas Child Fatality Study (Gober, Graham, Baumann, & Kern, 1998; Graham, et al., 2010), the risk and protective factors for child fatality and their consequences do not exist in isolation—if they did, all risk factors would be purely dangerous and family strengths would be purely protective. However, the risk factors and family strengths come to exist within the context of CPS investigating the case and making assessments (i.e., the investigative/organizational context). For this reason, obvious “risk” factors might paradoxically lead to *child protection* (for instance by a plan in response being developed that addresses the risk), and family strengths might paradoxically lead to the child failing to receive the protection needed (as when the evident family strengths lull the investigative worker into a false sense that the situation isn’t really that dangerous, because there seems to be a good parent-child relationship [Baumann et al., 2011]). For example, caseworkers may tend to underestimate the seriousness of cases when there appears to be a positive emotional connection between caregiver and child, the caregiver is cooperative with CPS, and the caregiver seems to have other positive social relationships.

Conceptualizing Danger and Safety as a Continuum

Arguably, safety is a continuum, not a dichotomy. It seems questionable for assessment models to assert that children are either safe or unsafe; and to require safety plans be developed *only* when there are identified safety threats. With babies and young children this can be a formula for disaster because of the physical vulnerability of these children. Note that in some actuarial-based and other risk assessment models child vulnerability is accounted for in applying each item, so that the threshold for marking an item is lower for a vulnerable child such as an infant or young toddler (personal communication, Raelene Freitag, February 20, 2013).

When babies and toddlers are involved, safety plans need to occur early, *before* a crisis has developed. As pointed out by Sheldon Sherman, Smith, and Wilson (2013), many current risk and safety assessments do not give minor inflicted injuries to babies and toddlers the importance they deserve. Even minor injuries to these very young children should require CPS intervention. Because the United States lacks sufficient family support services, an urgent CPS worker request and/or a judge's order for a proper provision of services may be necessary, in some cases in which children remain in the home.

Conversely, conceptualizing danger and safety as a continuum with no standardized clear "threshold" can result in inconsistent decisions about when a situation has become dangerous enough to require immediate intervention. Inconsistency is a vacuum that can be filled with bias, fear-based practice, or shortcuts resulting from workload pressures and lead to over- or under-responding to the actual level of danger. Finally, CPS safety experts often see *service plans* but rarely see strong *safety plans*—those that detail specific actions that must be taken by adults caring for children when danger is present (e.g., Turnell & Essex, 2006).

Beyond Tools: A Comprehensive Approach

There are good reasons why any risk assessment tool designed to estimate risk of recurrence of maltreatment, broadly considered, will not

be able to accurately estimate the likelihood of low base-rate phenomena such as serious injuries or child deaths. These tools are not designed to make these types of estimations. Conceptually confusing the *likelihood of recurrence of maltreatment* with the *risk of severe harm due to maltreatment* hinders well-informed decisionmaking. Child protection issues concerning babies and toddlers have to do with the enhanced likelihood of severe injury if maltreatment occurs, not with the risk of maltreatment *per se* (although the two concerns are related.)

In fact, risk assessment developers acknowledged several years ago that risk assessment models (and associated tools), have modest predictive powers at best, specifically many false positives (families classified as high risk due to clusters of risk factors or extensive histories of child maltreatment, but who are not found to abuse or neglect their children). In contrast, *risk estimation* (i.e., classifying cases into high, moderate and low risk categories) is what these tools do best (Shlonsky & Wagner, 2005).

Competent assessment and decisionmaking in child protection depend on sound professional judgment and a comprehensive systemic approach that transcends the use of specific tools. Proper use of risk assessment tools may help caseworkers by highlighting more subtle, but potentially dangerous, aspects of a family situation. But scores on actuarial-oriented systems may not always be able to account for this complexity—hence the need for a CPS workforce that not only uses actuarial-based tools if they are available, but is skilled in child and family assessment broadly, and employs critical thinking to gather and analyze information.

Any approach requires proper implementation to be used effectively. Years ago, English and Pecora (1994), English and Graham (2000) and other authors since then (e.g., Baumann et al., 2005; 2011) wrote about the potential and the limitations of risk assessment approaches—with many problems related to incomplete implementation such as a lack of training, ongoing coaching, quality assurance and measurement of assessment system performance. In addition, a number of studies, including a recent study of child

deaths in Los Angeles, have recognized that tools often are not used as designed, and the risk scores can be misused to justify a caseworker's predetermined goal (e.g., close a case or open a case for services) (Los Angeles Department of Child and Family Services Special Investigation Unit, 2012).

These authors, developers of the safety and risk approaches presented, and other experts also stress the importance of thorough training of child protective services caseworkers and strong clinical supervision that provides caseworkers with ongoing guidance and support. Without effective training and coaching, forms and tools will likely be used in a *pro forma* way (Gillingham, 2009). Unfortunately, it is often expected that risk assessment or family assessment tools will enable caseworkers to sort out extremely complex family situations. Classification of safety and risk is not a substitute for a cogent narrative that connects risk and protective factors with the perspectives and motives of caregivers. Safety and risk assessment tools, in other words, do not substitute for clinical assessment.

Even knowing quite accurately which families are in greatest danger or at highest risk will not prevent serious maltreatment or fatalities unless there is an effective approach to intervention that includes sufficient caseworker time to build a working relationship with family members, and community resources needed to support those families (Baumann, Law, Sheets, Reid, & Graham, 2005). Assessment, planning and decisionmaking activities are improved by judgments about child safety being explicit, and discussed openly in a manner that respects the perspectives and voices of parents, relatives and involved service providers. Meaningful participation of families and communities in decisionmaking builds transparency and shared accountability among family members and professionals. When professionals and service delivery systems, as well as extended family and kin, collaborate on these decisions, it reinforces the expectation that families and communities are ultimately responsible for the safety and well-being of their children: "They are the people that most need to think themselves into and thru the risk." (Andrew Turnell, personal communication, February 19, 2013).

Though there has been a longstanding general agreement among scholars that child maltreatment deaths cannot be predicted, more recently it has been suggested that accurate prediction of child fatalities on open CPS cases may be possible through the use of multi-layered statistical algorithms (Graham, Stepura, Baumann, & Kern, 2010). While experience in other fields suggests that extremely accurate statistical models will be complicated to the extent that they defy intuition and are difficult to explain to practitioners, these statistical models and actuarial-based approaches have important benefits.

Need for Research

Current risk and safety practice approaches have not been empirically tested for their ability to predict or prevent severe or fatal child maltreatment. With the exception of two studies, there is little research that demonstrates that any of the approaches *increases* the risk of overlooking severe child maltreatment or risk of fatality. The Texas Child Fatality Study (Gober et al., 1998; Graham et al., 2010) found a range of situations commonly rated as non-severe in which children are actually at risk of fatality, and therefore not likely to be identified by assessment models that use a safe/not safe dichotomous assessment approach. Another study of child deaths in Los Angeles raises cautions about actuarial-based models to prevent child deaths, but the study was not able to distinguish concerns related to *assessment method design* or *incomplete implementation*—with some workers not trained or supervised sufficiently well. Thus much more research is required before any definitive conclusions can be drawn. Overall, across all major forms of safety and risk assessment, the following kinds of studies are needed:

- Construct validity
- Inter-rater reliability analyses
- Predictive validity (did the risk scores predict certain kinds of outcomes)
- Fidelity assessments to measure degree of proper use.

Conclusions

We share the view that prevention of maltreatment-related child fatalities requires a comprehensive systemic approach that utilizes, but must transcend, the use of specific tools. There is also much agreement in the field of child welfare that effective safety and risk assessment, and related decisionmaking, must be ongoing throughout the family's involvement with child protection (e.g., DePanfilis, 2005). Until there are foolproof forecast methods, we must bring the best of our decisionmaking to each moment, recognize the strengths and limitations of the approach we are using, cross-check our thinking with another approach and with other people, and as Munro (2002) has stated, always be willing to admit we are wrong. This is especially helpful if the assessment is based on understanding and appreciation of the wisdom and traditions of different cultures, races and ethnicities. Regardless of the ultimate success of assessment approaches in terms of predictive accuracy, the field of child protection will never be able to dispense with the need for thoughtful persons who can comprehend the key elements of family situations and communicate the essential rationale for key decisions to supervisors, family members, and others.

References

- ACTION for Child Protection. (undated.) *The CPS safety intervention system*. Retrieved from <http://www.actionchildprotection.org/the-cps-safety-intervention-system/the-cps-safety-intervention-system/>.
- Baumann, D. J., Dagleish, L., Fluke, J., & Kern, H. (2011). *The Decisionmaking Ecology*. Washington, DC: American Humane Association. Retrieved from <http://www.americanhumane.org/assets/pdfs/children/cprc-dme-monograph.pdf>.
- Baumann, D. J., Grigsby, C., Sheets, J., Reid, G., Graham, J. C., Robinson, D., Holoubek, J., Farris, J., Jeffries, V., & Wang, E. (2011). Concept guided risk assessment: Promoting prediction and understanding. *Children and Youth Services Review*, 33(9): 1648-1657.

- Baumann, D. J., Law, J. R., Sheets, J., Reid, G., & Graham, J. C. (2005). Evaluating the effectiveness of actuarial risk assessment models. *Children and Youth Services Review*, 27(5): 465-490.
- Berger R. P., Fromkin J. B., Stutz H, Makoroff, K., Scribano, P. V., Feldman, K., Tu, L. C., & Fabio, A. (2011). Abusive head trauma during a time of increased unemployment: a multicenter analysis. *Pediatrics*, 128(4): 637-643.
- Children's Research Center. (1999). *The improvement of child protective services with Structured Decisionmaking: The CRC Model*. Madison, WI: Author.
- DePanfilis, D. (2005). Child protection. In G. P. Mallon & P. M. Hess (Ed.), *Child welfare for the 21st century: A handbook of practices, policies, and programs* (pp. 290-301). New York: Columbia University Press.
- Dörner, D., & Wearing, A. (1995). Complex problem solving: Toward a (computer-simulated) theory. In P. A. Frensch & J. Funke (Eds.), *Complex problem solving: The European Perspective* (pp. 65-99). Hillsdale, NJ: Lawrence Erlbaum Associates.
- English, D. J., & Pecora, P. J. (1994). Risk assessment as a practice method in child protective services. *Child Welfare*, 73(5): 451-473.
- English, D. J., & Graham, J. C. (2000). An examination of relationships between Children's Protective Services social worker assessment of risk and independent LONGSCAN measures of risk constructs. In Gambrill & Shlonsky (Eds.). Special Issue: Assessing Risk in Child Maltreatment. *Children & Youth Services Review*, 22(11/12): 897-933.
- Freundlich, M. & Bocknek, E. L. (2007). Child fatalities in New York City: An assessment of child protective service practice. *Families in Society: The Journal of Contemporary Social Services*, 88(4), 583-594.
- Funke, J. (1991). Solving complex problems: Human identification and control of complex systems. In R. J. Sternberg & P. A. Frensch (Eds.), *Complex problem solving: Principles and mechanisms* (pp. 185-222). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gawande, A. (2009). *The checklist manifesto: How to get things right*. New York City: Metropolitan books (Division of Macmillan).
- Gillingham, P. (2009). *The Use of Assessment Tools in Child Protection: An Ethnomethodological Study*. (Doctoral Dissertation) Melbourne: The University of Melbourne, Faculty of Medicine, Dentistry and Health Sciences.

- Gober, K. J., Graham, J. C., Baumann, D. J., & Kern, H. (1998). *The Texas Child Fatality Study: A Comparison of Fatality and Non-Fatality Cases*. Austin, Texas: Texas Department of Family and Protective Services.
- Graham, J. C., Stepura, K. L., Baumann, D. J., & Kern, H. (2010). Predicting child fatalities among less-severe CPS investigations. *Children and Youth Services Review*, 32(2): 274-280.
- Khaneman, D. (2011). *Thinking Fast and Slow*. New York City: Farrar, Straus & Giroux.
- Klein, G. (1998). *Sources of Power: How People Make Decisions*. Boston: The MIT Press.
- Klein, G. (2009). *Streetlights and Shadows*. Boston: The MIT Press.
- Los Angeles Department of Child and Family Services Special Investigation Unit. (2012). 2011 Recurring Systemic Issues Report. Retrieved from <http://documents.latimes.com/report-severe-problems-los-angeles-county-department-children-and-family-services/>.
- Munro, E. (1999). Common errors of reasoning in child protection work. *Child Abuse & Neglect*, 23(8): 745-758.
- Munro, E. (2008). *Effective child protection*. (Second Edition.) London: Sage Publications.
- Puckett, A. (2010). *Fatal Child Maltreatment: National Data, Research Findings, and Implications for Practice*. Seattle: Casey Family Programs.
- Putnam-Hornstein, E. (2010). *Do "Accidents" Happen? An Examination of Injury Mortality Among Maltreated Children* (unpublished dissertation, University of California, Berkeley).
- Sheldon-Sherman, J., Wilson, D., & Smith, S. (2013). Extent and nature of child maltreatment related fatalities: Implications for policy and practice. *Child Welfare*, 92(2), 41-58.
- Shelman, E. A., & Stephen Lazoritz, S. (2005). *The Mary Ellen Wilson Child Abuse Case and the Beginning of Children's Rights in 19th Century America*. Jefferson, NC: McFarland & Company.
- Shlonsky, A., & Wagner, D. (2005). The next step: Integrating actuarial risk assessment and clinical judgment in an evidence-based practice framework in CPS case management. *Children and Youth Services Review*, 27(4), 409-427.
- Silverman, F. N. (1973) Unrecognized trauma in infants, the battered child syndrome, and the syndrome of Abroise Tardieu: Rigler lecture. *Radiology*, 104, 337-353.

- Turnell A., & Edwards, S. (1999). *Signs of safety: a solution and safety oriented approach to Child Protection casework*. New York: Norton.
- Turnell A., & Essex, S. (2006). *Working 'denied' child abuse: the resolutions approach*. Buckingham: Open University Press.
- Turnell, A. (2012). Signs of Safety; briefing paper (Version 2.0). Perth: Resolutions Consultancy. Retrieved from <http://sofs.s3.amazonaws.com/downloads/Briefing%20Paper%20v2-1.pdf>.
- Wagner, D. & Bogie, A. (2010). *California Department of Social Services validation of the SDM® reunification reassessment*. Retrieved from http://www.nccdglobal.org/sites/default/files/publication_pdf/crr_validation_report.pdf.
- Western Australian Department for Child Protection. (2011). *The Signs of Safety Child Protection Practice Framework*. Perth: Department for Child Protection.
- White, A., & Walsh, P. (2006). *An Issues Paper: Risk Assessment in Child Welfare*. Ashfield, New South Wales: Centre for Parenting & Research. Retrieved from http://www.community.nsw.gov.au/docswr/_assets/main/documents/research_riskassessment.pdf.

Innovative Cross-System and Community Approaches for the Prevention of Child Maltreatment

Paul DiLorenzo

Casey Family Programs

Catherine Roller

White

Casey Family Programs

Alex Morales

*Children's Bureau of
Southern California*

Andrea Paul

*Opportunity Alliance
Portland, Maine*

Suna Shaw

*Department of Public Safety
Portland, Maine*

Because of the complexity and depth of problems facing children and families today, child protection can be best accomplished through a community effort—not simply through the efforts of the traditional child welfare system and other child- and family-serving agencies. Community-based initiatives supporting families and individuals are promising mechanisms through which to efficiently reach a wide range of community members consistent with a public health model. This conceptual paper describes the principles of community-based approaches for the prevention of child maltreatment and briefly describes four initiatives that are providing comprehensive, community-based prevention.

Risk factors for child fatalities, severe non-accidental childhood injury, and other forms of child maltreatment—such as low socioeconomic status, prior allegations of maltreatment, limited maternal education, parental substance abuse, and child behavioral problems (e.g., Graham, Stepura, Baumann, & Kern, 2010; Putnam Hornstein, 2011)—can be prevented or ameliorated by community-based family support services. In particular, a small but growing body of evidence indicates that strategies that reduce parent isolation, increase family income, improve housing conditions, and connect parents with mental health services can prevent child maltreatment (MacMillan et al., 2009; Pecora et al., 2012).

In recent years, more child welfare professionals have come to believe that protection of children from maltreatment can be best accomplished through a community effort—not simply through the public child welfare system. As a result, child welfare agencies have explored how community- and neighborhood-based centers, with a wide range of formal and informal partners, can help keep children and families safe and stable. Community-based centers of support are promising mechanisms that efficiently reach a wide range of community members. This conceptual article briefly explores the nature of community-based family support, and it highlights four examples of centers that emphasize safety and well-being.

History of and Context for Community-Based Models

The roots of social work can be traced back to settlement houses, which began in the late 19th century. They were the original *place-based* services. From 1875, when organized child welfare began in the United States, until the early 1960s, child welfare was primarily the function of nongovernmental organizations, such as settlement houses and Societies for the Prevention of Cruelty to Children. Beginning in 1962, in part because x-ray technology allowed physicians better understanding of the cause of abuse-related fractures, and sparked by the interest generated by the publication of *The Battered Child Syndrome* and other media coverage of severe child

abuse, public interest in child protection swelled. Child protection became primarily the function of government sponsored services (Myers, 2008). By the early 1990s, overwhelmed, under-staffed child welfare agencies were trying to assist families who were dealing with complex problems. The child welfare system was “failing the children and families who needed help the most” (Center for Community Partnerships in Child Welfare of the Center for the Study of Social Policy, 2005, p. 6). National experts recommended that the child welfare system be restructured to include community-based agencies, calling for “coordinated, comprehensive, community-based prevention, identification, and treatment of abuse and neglect” (U. S. Advisory Board on Child Abuse and Neglect, qtd. in Center for Community Partnerships in Child Welfare of the Center for the Study of Social Policy, 2005).

In addition to a noticeable shift away from a system comprised of governmental organizations, child welfare has moved from a *child rescue* mentality to a more inclusive *family empowerment* model that includes community-based, family support practice. An underlying tenet of the model is that services should blend seamlessly with the culture, standards, and strengths of a community or neighborhood. Another milestone in the evolution of child welfare is the shift from the narrow perspective of assessing risk factors to identifying and building on a family’s protective strengths, such as through family-group decisionmaking and systems of care approaches (Burford & Pennell, 1995; McCammon, Spencer, & Friesen, 2001), and more sophisticated mining of large multi-sector data sets to identify key factors associated with severe child injuries, including fatalities (Putnam-Hornstein, 2011, 2012).

At a deeper level, this revised child welfare paradigm attempts to move the field away from the notion that child safety and child well-being are solely dependent upon the behavior of the parents. It broadens the conversation to include the importance of community, and the need to achieve adequate levels of support in the overall environment in which children live. This model of child welfare is based on enhancing intergroup relations and engaging sources of support

from other sectors, such as schools, medical facilities, neighborhood and civic associations, places of worship, and other human service organizations (Janchill, 2005). Schorr and Marchand describe this evolution in thinking about child welfare in this way:

Over the years, child maltreatment researchers and practitioners have explicitly recognized that most maltreatment results from a complex web of factors related to a person's personality, family history, and community context. Ecological theory, with its acknowledgement that individual, familial, community, and societal factors interact to increase or decrease the likelihood of child maltreatment, now represents the most commonly accepted theory of maltreatment. (2007, p. O-6)

The National Scientific Council on the Developing Child also explained this shift in thinking:

Traditional child welfare approaches to maltreatment focus largely on physical injury, the relative risk of recurrent harm, and questions of child custody, in conjunction with a criminal justice orientation. In contrast, when viewed through a child development lens, the abuse or neglect of young children should be evaluated and treated as a matter of child health and development within the context of a family relationship crisis... (2004, p. 5).

Historically, child welfare professionals sought to answer the question: *How can we find the families that are abusing and neglecting their children so we can intervene to protect the child?* This led to enormous investments in child abuse reporting, investigation systems, and interventions, creating a legalistic system of investigations, court processes, and various levels of interventions. While the question of how to identify abusive and neglectful families makes logical sense, it has led the Child Protection System away from a more helpful question, which is asked by most parents: *Can you help me raise my child so he/she*

can be healthy and successful, and help spare him/her from many of the challenges I experienced when I was a child? Community-based, integrated service models can answer this question. This article provides a concise overview of how community-based child abuse prevention efforts are being designed, and it highlights four models as examples.

Core Concepts of Community-Based, Integrated Service Models

Principles Guiding Community-Based, Integrated Service Models

Boyes-Watson provides a tangible definition of *community*:

When people have a sense of trust and mutuality with others, they rely on that connection to meet their needs in a pattern of loose reciprocity rooted in ongoing and enduring relationships. They give each other rides; lend and borrow things; feed each others' children; gossip about them; watch out for them on the street; discipline them when they misbehave; carry groceries upstairs; offer a tip on a job opening or apartment; check in on the sick and notice when someone who should be around is missing. This suggests that community is rooted in a particular sense of connection which, in turn, leads to certain kinds of social action. (Boyes-Watson, 2005, p. 362)

In many neighborhoods throughout the country, this type of community is missing, due in part to residential instability among low income families. Informal supports available through social bonds are lacking, and people live in relative isolation from one another. Community-based family support centers can foster the type of community Boyes-Watson describes. They can promote well-being and safety, encouraging and guiding families towards healthy parenting. The successful centers make it easier for parents to have the knowledge and resources to raise their children, to receive the appropriate type of support in raising them, and to access support without significant social

stigma or coercion. A recent report from the Aspen Institute described the dual purposes of community change efforts: "Community change efforts seek to build social capital in distressed communities for affective reasons—to ameliorate the corrosive effect that extreme poverty can have on interpersonal bonds and supports—and for instrumental reasons—to build the civic, economic, and political power of residents for collective action and community improvement" (Kubisch, Audpos, Brown, & Dewar, 2010, p. 36).

In 1995, the Edna McConnell Clark Foundation created a multi-site, multi-year initiative called Community Partnerships for Protecting Children (CPPC). The goal of the four initial CPPC sites was to keep children safe while using a family-centered approach to child welfare. The Clark Foundation now supports the Center for the Study of Social Policy in its CPPC initiative, described more fully below. As of May, 2013, more than 50 sites are active. The values upon which the community partnerships are based succinctly describe guiding principles for the development of community-based, integrated service models (see <http://www.cssp.org/reform/child-welfare/community-partnerships-for-the-protection-of-children>):

1. Families are stronger when all members, including parents and caregivers, are safe from abuse
2. There is no substitute for strong families to ensure that children and youth grow up to be capable adults
3. Families do best when they live in supportive communities
4. Children do best when families, friends, residents and organizations work together as partners
5. Children should stay with their own families whenever possible
6. Services and supports need to be available earlier, before crises occur and must be closely linked to the communities in which families live
7. Government alone, through the public child protective services agency, cannot keep children safe from abuse and neglect
8. Efforts to reduce abuse and neglect must be closely linked to broader community initiatives and priorities

9. All families should receive high-quality services with no disparities among racial, ethnic, religious, or socioeconomic groups
10. Each community must shape the strategies and network of services based on its own resources, needs and cultures

Contextualizing Community-Based Initiatives

The concept of community within a system of care includes issues of locality, connection, and services as well as the social bond described by Boyes-Watson above. Following a community-based approach means child welfare agencies and their partners must not only provide relevant and individualized services in the community in which a young person lives, but also must include community input in the administrative and policy-making work of building a system of care (Melius, Black, & McCarthy, 2009). The system of care framework includes many elements that are relevant for in the development of community-based initiative (see <https://www.childwelfare.gov/pubs/soc/soc.pdf>).

Programs that improve protective factors—including parental resilience, social connections, knowledge of parenting/child development, concrete support in times of needs, and social/emotional competence of children—are particularly effective (Center for the Study of Social Policy, 2007). When families are supported by their community and are able to become more self-sufficient, their level of stress is decreased and incidences of child abuse and neglect are reduced, as are the number of children entering foster care. Neighborhood centers can make networks of preventive services and family support available at an earlier stage.

Changing Roles for Child Welfare Agencies and Government

Building community and neighborhood networks of family support and child protection requires that public agencies make dramatic shifts and reconsider their work in the context of immediate and long-term prevention. These shifts include the development of intentional community partnerships, often with nonprofit organizations

that have history and credibility within a specific location. Public agencies must adapt their practice and policy to accommodate and support the partnerships. For example, agencies can move their staff from centralized locations to more welcoming neighborhood settings; forego a “one-size-fits-all” approach to allow for more customized service plans for families; enhance family connections to informal supports and natural helping networks (moving away from an over-reliance on professional personnel); develop robust cross-discipline teaming to address the complexity of child safety and family stability issues; and decentralize decision-making to encourage more front-line discretion. Centrally based, monolithic organizations are not designed for responsiveness, but rather emphasize compliance and performance measures of staff and managers. The tasks related to child protection demand responsiveness and a commitment to long-term family healing.

The role of government shifts from primarily being a funder of prescribed services to being a supporter of building community capacity and a catalyst for broad community ownership of a social concern. Providing flexible funding for these programs through Title IV-E Waivers is also a possibility.

Four Case Studies of Community-Based Initiatives

Community Partnerships for Protecting Children (CPPC) Initiative (Portland, Maine)

The CPPC Initiative in Portland, Maine serves over 5,400 residents, many of whom are new immigrants, in Maine’s most ethnically diverse and densely populated neighborhood. The Parkside Neighborhood Center is one of many initiative partners and is one of many places where people come together to strengthen their neighborhood. The mission of the Center, which is a program of the Opportunity Alliance, is “to strengthen individuals and families by offering educational and cultural opportunities to connect diverse neighbors and promote social and physical well-being.” The Center’s vision is to be a safe space where all community members can:

- Feel connected with their neighbors, their family and the larger Portland community
- Recognize and access available resources
- Access education and employment opportunities
- Experience healthy ways of living (see <http://www.opportunityalliance.org/programs/community-initiatives/parkside-neighborhood-center/>)

The Center offers, among other programs, after-school care, family story time, financial management classes, parenting classes, and social groups, such as a Somali women's group. Child Protective Services are also located at the Center.

Child welfare workers in the neighborhood decided that they wanted to become part of the community, not just work in the community. Therefore, one afternoon they set up a free lemonade stand in front of the building with the highest volume of CPS reports, described here by Andrea Paul and Suna Shaw:

With nothing more than two coolers, cups and some lemonade, we drove to our familiar territory and began the first annual CPPC lemonade stand on the stoop. No table. No chairs. Just some chalk, bubbles, and a desire to change—even for a few hours—the challenges this block experienced. While we were beginning our endeavor, people seemed confused about what we were doing. We made calls to our local providers, neighborhood centers, and families we had a good relationship with to come out and visit. Within the hour, people were everywhere, including our intended audience, parents with current open assessments as well as closed cases. Kids that wouldn't speak in our interviews were chatting with us and playing on the sidewalk in chalk. A Portland police lieutenant pulled up, unaware of what we were doing at first, and remarked "This is the sweetest sight I've seen on this street in a long time."

And that was it. For three hours, this block transformed from a bleak, uncomfortable, and scary place to a family-friendly

and fun place to be. As partners, we came together. Families saw us interacting in a new way, and got to be part of that. Once these connections get fostered, it is hard to ever go back.

A full evaluation of the CPPC site (which includes neighborhoods in addition to Parkside), which examines the association between CPPC program activities and the number of CPS referrals (and includes another city in Maine as a comparison site), is underway. Specific to Parkside, preliminary data from Maine's Department of Health and Human Services indicate that the number of total reports of maltreatment in the neighborhood decreased from 72 in 2009 to 61 in 2011, and the total number of children removed decreased from 23 to 12 during the same time period (A. Paul, personal communication, January 24, 2013).

Magnolia Community Initiative (Los Angeles, California)

The Magnolia Place Community Initiative, launched in 2008, focuses on four key goals: educational success, good health, economic stability, and safe and nurturing parenting (see <http://www.magnoliaplacela.org/>). Research has indicated that these goals are imperative for the creation of safe, supportive environments in which children thrive, free of abuse and neglect (Shonkoff & Phillips, cited in Bowie, 2011). The ultimate goal of the Initiative is for the 35,000 children and youth, especially the youngest children, living in the neighborhoods within the 500-block Magnolia Catchment Area in Los Angeles to break all records of success in their education, health, and the quality of safe and nurturing care and economic stability they receive from their families and community.

This ambitious goal represents a new way of tackling the problem of child abuse and neglect by creating population change within neighborhoods and communities, going upstream, and innovating. The Initiative aims to "work with the strengths of these residents to initiate and drive positive change for the community as a whole, moving beyond just providing services to a select and fortunate few" (Bowie, 2011, p. 4). Because "services themselves are not sufficient for

achieving community-level change no matter how well they are delivered," the Initiative seeks to "galvanize community residents and organizational partners to create a local response to improving their communities" (Bowie, 2011, p. 8). The approach is motivated by the recognition that the current scale of the problem in this ethnically diverse, densely populated, and economically poor urban community far exceeds the capacity of individual service providers.

The Magnolia Community Network comprises more than 70 diverse partner organizations, including government, nonprofit, for-profit, faith, and community group associations. Four backbone organizations (County of Los Angeles Chief Executive Office, Children's Bureau of Southern California, University of California at Los Angeles, and Echo Parenting Center) provide significant support. The network has an extensive communication system in which subgroups have regular face-to-face meetings as well as extensive on-line communications via a member website. Key workgroups are ambassadors/champion leadership, research, move-the-dot improvement team, and community engagement.

Community *promotoras*, neighborhood community leaders, connect individuals in the community to social and civic groups. The idea behind the *promotoras* is that "it is through bridging social capital (linking individuals, groups and resources otherwise unknown to one another) that access to resources, such as new information, education, employment or other opportunities, assists people in getting ahead" (Bowie, 2011, p. 17).

Community partners work together to create plan-do-study-act (PDSA) experiments to test and improve strategies for change. *Move-the-dot* is one of the important subgroups which represent the learning and improvement process for testing potentially scalable changes. One PDSA experiment is the Community of Practice for Early Childhood Education, which has been working with child development centers, daycare providers, elementary schools, and parents to develop and test strategies to help parents of young children learn about brain science, protective factors, parenting, reading in the home, and successful activities for transitioning preschoolers into kindergarten.

The Initiative has begun to collect data on interim outcomes. To measure impact of the Initiative at the community level, partners developed a Protective Factor and Community Belonging Survey, administered in 2009 to 800 individuals (550 of whom lived in the Initiative catchment area). This baseline data will be used to measure community level outcomes when the survey is re-administered in the future. In addition, the Initiative administered a participant survey to network partners in 2009 and 2010 to gauge their understanding and usage of the Initiative's frameworks (It Takes a Community and the Protective Factors framework; see Bowie [2011], p. 9). The Initiative uses organizational network analysis to measure change in the number of critical connections within the community. Initiative partners are currently working on the more daunting task of developing measures of long-term outcomes, which are more difficult to collect because the catchment area does not lie neatly in a specific jurisdiction (such as a census tract or ZIP code). The Initiative is adopting the Early Development Index, which measures child development in five-year-olds based on kindergarten teacher input (Bowie, 2011). The Magnolia Community Dashboard displays quarterly progress on outcomes such as third-grade reading scores and kindergarten readiness.

Center for Family Life in Sunset Park (Brooklyn, New York)

Founded in 1978, Center for Family Life, a program of SCO Family of Services, is a neighborhood-based social service organization serving over 15,000 individuals and 8,000 families. Located in Sunset Park, a high-poverty neighborhood with many new immigrant residents, the mission of the Center is to "promote positive outcomes for children, adults and families in Sunset Park through partnership with the community to provide access to neighborhood-based resources that promote economic stability, support educational progress, and provide opportunities for personal growth and the development of interpersonal relationships" (Center for Family Life in Sunset Park, 2009, p. 2). Its core strategies include individualized services, a high degree of accessibility in multiple community schools and storefront

locations, collaboration with community partners, youth and adult leadership development, social group work practice, integration of programs and services, roundtable leadership (including weekly meetings of internal stakeholders), and commitment to community ownership of the neighborhood's future.

The Center provides services to the neighborhood through family counseling, neighborhood-based foster care, in-school and after-school based youth development programs to over 1,500 youth each day in six local public elementary and high schools, youth and adult employment and small business development programs, and community services (such as a food pantry, tax assistance, and connections to public assistance).

The Center's Family Counseling program—which builds on family strengths, emphasizes a supportive relationship between counselor and family, and connects clients to tangible supports and resources—is contracted with New York City's child welfare authority to provide preventive counseling services in the neighborhood. In fiscal year 2010, the counseling program served 1,066 children in 576 families, 518 of which participated in preventative counseling services. Of the 527 families participating in preventive counseling services in fiscal year 2009, children from only two were admitted to foster care (Center for Family Life in Sunset Park, 2009, pp. 36-37). Overall, the rate of children entering foster care is less than half that of New York City's average (Center for Family Life in Sunset Park, 2010, p. 2), which the Center attributes in part to its counseling program and to its provision of school and community-based educational and economic supports for neighborhood families.

Prevention Initiative Demonstration Project (Los Angeles, California)

The Prevention Initiative Demonstration Project (PIDP), funded by the Los Angeles Department of Children and Family Services (DCFS) with assistance from a Title IV-E Waiver, was founded in 2008 with the goal of reducing child abuse and neglect. The project hypothesizes that child abuse and neglect can be reduced if:

- Families are less isolated and able to access the support they need.
- Families are economically stable and can support themselves financially.
- Activities and resources are integrated in communities and accessible to families (McCroskey et al., 2010, p. 20).

PIDP was designed to address the entire continuum of child abuse prevention and to allocate resources to primary, secondary, and tertiary approaches:

- Universal prevention: directed to the entire high-risk community (50% of resources)
- Selective prevention: supporting parents who have inconclusive or unfounded referrals in addressing risk factors and fostering child development (30% of resources)
- Indicated approaches: working with parents with open DCFS cases to assist them in caring for and protecting their children (20% of resources) (McCroskey et al., 2010)

The design of PIDP was informed by the Pathway Mapping Initiative conducted by Schorr and Marchand, which includes six broad goals: “(1) children and youth are nurtured, safe, and engaged; (2) families are strong and concerned; (3) identified families access services and supports; (4) families are free from substance abuse and mental illness; (5) communities are caring and responsive; and (6) vulnerable communities have the capacity to respond” (Schorr & Marchand qtd. in McCroskey, Pecora, Franke, Christie, & Lorthridge, 2012, p. 42). The design was also informed by the Strengthening Families principles developed by the Center for the Study of Social Policy, focusing on protective factors (see <http://www.cssp.org/reform/strengthening-families>).

PIDP involved 18 local DCFS offices working in eight of Los Angeles County’s Service Planning Areas (SPAs). Neighborhood Action Councils (NACs) were formed to organize and empower community members in making meaningful changes in their community. During the first year of the project, 89 community-based organizations and local groups participated, serving nearly 20,000 people (duplicated

count). A Network Collaboration Survey was administered to assess the effectiveness of inter-agency participation and found that PIDP networks were functioning on par with or more effectively than most other social services networks nationwide. During the second year, nearly 18,000 unduplicated people were served. Evaluation results indicate that families reported increased social support, and DCFS reported decreased rates of re-referral and more timely achievement of legal permanency (McCroskey et al., 2012).

Conclusions

Community-based centers are not without their own challenges. Issues related to quality assurance, the difficulty in applying traditional evaluation metrics to the practice model and design, sustainability, fidelity to the model, conflict resolution and scale are consistent areas of concern (Melius et al., 2009; Paul & Elder, 2001; Schorr & Farrow, 2011). Because these approaches use multipronged approaches to address complex, multifaceted problems, it can be difficult to link specific elements of the approach to improved child, family, and community outcomes. Expanding longstanding beliefs about what constitutes credible evidence of success (beyond randomized clinical trials) is a necessary step. Schorr and Farrow (2011, p. 3) call for the following to create an evidence base:

- Findings from research and theory about what children need for optimal development
- Evidence from programs that achieve results and provide children and families with what they need
- Implementation factors and community capacities, connections, and infrastructure to support communities in providing children and families with what they need
- Common factors of effective programs and strategies that achieve results
- Findings about the effects of complex interventions, based on multiple methods of evaluation as well as performance measurement using a results framework

Another challenge in promoting community approaches is convincing traditional child welfare agencies to become more community focused. This is in part because of agencies' unique role in child protection and because of the lack of flexible funding to support alternative models. Federal waivers on Title IV-E dollars, as demonstrated in the Prevention Initiative Demonstration Project described above, can provide some flexibility.

Despite the challenges, there are a number of examples of successful community-based models that include professional helpers from across disciplines, as well as community and neighborhood residents. Schorr and Farrow remind us of the complexity of social problems facing our nation:

The 'wicked' problems that face us today tend to be caused by such complex forces that their course cannot be changed by isolated interventions. They require multiple stakeholders working together, over many years, with a shared commitment to common results, so that the resources and authority necessary to bring about the needed changes can be mobilized and successfully applied (2011, p. iii).

Large-scale change takes time. It requires tremendous commitment, resources and effort to build and sustain these community-based child maltreatment prevention strategies. However, community-based approaches are a promising approach to positively impact child maltreatment and keep more children safe in their homes and communities.

References

- Bowie, P. (2011). *Getting to scale: The elusive goal - Magnolia Place Community Initiative*. Seattle: Casey Family Programs.
- Boyes-Watson, C. (2005). Community is not a place but a relationship: Lessons for organizational development. *Public Organization Review: A Global Journal*, 5, 359-374.

- Burford, G., & Pennell, J. (1995). Family group decision-making: An innovation in child and family welfare. In B. Galaway & J. Hudson (Eds.), *Child welfare systems: Canadian research and policy implications* (pp. 140-153). Toronto: Thompson Educational Publications.
- Center for Community Partnerships in Child Welfare of the Center for the Study of Social Policy. (2005). *Community partnerships for protecting children: Lessons, opportunities, and challenges*. New York: Author.
- Center for Family Life in Sunset Park, SCO Family of Services. (2009). *Annual report fiscal year 2009*. Brooklyn: Author.
- Center for Family Life in Sunset Park, SCO Family of Services. (2010). *Annual report fiscal year 2010*. Brooklyn: Author.
- Daro, D., Budde, S., Nesmith, A., & Harden, A. (2005). *Community Partnerships for Protecting Children: Phase II outcome evaluation*. Chicago: Chapin Hall Center for Children.
- Graham, J., Stepura, K., Baumann, D., & Kern, H. (2010). Predicting child fatalities among less-severe CPS investigations. *Children and Youth Services Review*, 32, 274-280.
- Janchill, M. P. (2005). *Tracing a paradigm shift in child welfare*. Center for Family Life in Sunset Park. Brooklyn, NY.
- Kubisch, A., Audpos, P., Brown, P., & Dewar, T. (2010). *Voices from the field vol. III: Lessons and challenges from two decades of community change efforts*. Washington, DC: Aspen Institute Roundtable on Community Change.
- MacMillan, H. L., Wathen, C. N., Barlow, J., Fergusson, D. M., Leventhal, J. M., & Taussig, H. N. (2009). Interventions to prevent child maltreatment and associated impairment. *Lancet*, 373, 250-266.
- McCammon, S. L., Spencer, S. A., & Friesen, B. J. (2001). Promoting family empowerment through multiple roles. *Journal of Family Social Work*, 5(3), 1-24.
- McCroskey, J., Franke, T., Christie, T., Pecora, P. J., Lorthridge, J., Fleischer, D., & Rosenthal, E. (2010). *Prevention Initiative Demonstration Project (PIDP): Year two evaluation summary report*. Los Angeles: Los Angeles County Department of Children and Family Services and Seattle: Casey Family Programs.
- McCroskey, J., Pecora, P. J., Franke, T., Christie, C. A., & Lorthridge, J. (2012). Strengthening families and communities to prevent child abuse and neglect: Lessons from the Los Angeles Prevention Initiative Demonstration Project. *Child Welfare*, 91(2), 39-60.

- Melius, P., Black, S., & McCarthy, M. (2009). Community-based resources: Keystone to the system of care. *A Closer Look*. Fairfax, VA: National Technical Assistance and Evaluation Center.
- Myers, J. E. B. (2008). A short history of child protection in America. *Family Law Quarterly*, 42(3), 449-463.
- National Scientific Council on the Developing Child. (2004). *Young children develop in an environment of relationships: Working paper no. 1: Center on the Developing Child*, Harvard University.
- Paul, R. W., & Elder, L. (2001). Overcoming obstacles to critical thinking in your organization. In R. W. Paul & L. Elder (Eds.), *Critical thinking: Tools for taking charge of your professional and personal life*. Upper Saddle River, NJ: Financial Times Prentice Hall.
- Pecora, P.J., Sanders, D., Wilson, D., English, D., Puckett, A. & Rudlang-Perman, K. (2012). Addressing common forms of child maltreatment: Intervention strategies and gaps in our knowledge base. *Child and Family Social Work*.
- Putnam-Hornstein, E. (2011). Report of maltreatment as a risk factor for injury death: A prospective birth cohort study. *Child Maltreatment*, 16(3), 163-174.
- Putnam-Hornstein, E. (2012). Preventable injury deaths: A population-based proxy of child maltreatment risk. *Public Health Reports*, 127(2), 163-172.
- Schorr, L., & Marchand, V. (2007). *Pathways to the prevention of child abuse and neglect*. California Department of Social Services, Children and Family Services Division Office of Child Abuse Prevention.
- Schorr, L. B., & Farrow, F. (2011). *Expanding the evidence universe: Doing better by knowing more*. Washington, DC and New York: Center for the Study of Social Policy.

Applying Principles from Safety Science to Improve Child Protection

Michael J. Cull

Vanderbilt University

Tina L. Rzepnicki

University of Chicago

Kathryn O'Day

*Tennessee Department of
Children's Services*

Richard A. Epstein

Vanderbilt University

Child Protective Services Agencies (CPSAs) share many characteristics with other organizations operating in high-risk, high-profile industries. Over the past 50 years, industries as diverse as aviation, nuclear power, and healthcare have applied principles from safety science to improve practice. The current paper describes the rationale, characteristics, and challenges of applying concepts from the safety culture literature to CPSAs.

Preliminary efforts to apply key principles aimed at improving child safety and well-being in two states are also presented.

Organizations in high-risk and high-profile industries such as aviation (Merritt & Helmreich, 1996), nuclear power (Terence & Harrison, 2000), and healthcare (Vogus, Sutcliffe, & Weick, 2010) have begun applying principles and concepts from safety science to improve practice and reduce the incidence of error leading to tragic outcomes (Weick & Sutcliffe, 2007).¹ State-level child protective services agencies (CPSAs) share many features in common with these and other high-risk, high-profile organizations. Although the task of ensuring the safety and well-being of children alleged to have been abused or neglected is very different from flying planes, producing electricity, or providing healthcare services, the results of error in the system are no less catastrophic. About 1,600 children die each year in the United States because of maltreatment (U.S. Department of Health and Human Services [DHHS], 2012).

The current paper applies principles and concepts from the safety culture literature to three aspects of CPSA practice that impact child welfare outcomes (e.g., sociopolitical context, organizational culture, and traditional social work practice perspective) and proposes a framework for advancing safety culture in CPSAs. A safety culture is one in which values, attitudes and behaviors support a safe, engaged workforce and reliable, error-free operations (Vogus, Sutcliffe & Weick, 2010). Safety cultures strive to balance individual accountability with system accountability and value open communication, feedback, and continuous learning and improvement (Chassin & Loeb, 2012). Early experiences from two states will be reviewed to highlight issues of implementation and sustainability.

Sociopolitical Context

All organizations work within a sociopolitical context that informs their goals, values, and operations (Hatch & Cunliffe, 1997). Because mistakes in high-risk industries such as aviation, nuclear

1 For purposes of this article, errors include mistakes in gathering or assessing available information, mistakes in planning, unintended failures of execution, and rule violations (Reason, 1990). Actions of sabotage—that is, violations with malicious intent—are excluded from our definition.

power, or healthcare often have high-profile consequences, a tension exists between hesitance to report errors to avoid media and other scrutiny and open, transparent reporting in the pursuit of “safer” practice (Morath & Turnbull, 2005). Studies of hospital nursing staff have found a positive association between organizational cultures characterized by reluctance to report errors and acknowledge mistakes and the frequency with which medical errors occur (Hofmann & Mark, 2006; Naveh, Katz-Navon, & Stern, 2005). Thus, organizational cultures that promote open, transparent, reporting have been shown to be safer.

A similar dynamic exists in CPSA practice. CPSAs’ responsibility to protect vulnerable children has resulted in service systems shaped not only by genuine, well-placed interest in serving these youth but also by media attention, public outrage, and attempts at court-ordered reform (Geen & Tumlin, 1999). The social and political pressures of high-profile cases have been shown to affect both front-line workers and policy-level decisionmaking (Geen & Tumlin, 1999) and may, in certain circumstances, compel CPSAs to react defensively and to shift policy and practice to fend off the most recent crises created by the most recent high-profile case (Orr, 1999).

High-profile cases often fuel public perception that CPSAs have either failed in their duty to protect or have overstepped their authority (Gainsborough, 2009). On one end of the continuum are cases in which a maltreated child previously known to the system is not protected from subsequent abuse. On the other end of the continuum are cases in which CPSAs remove a child from his or her family and home prematurely or without good cause. Both scenarios can lead to intense media scrutiny and attention from policymakers and other key stakeholders. Although it is certainly the case that this scrutiny and attention is an inherent and potentially helpful part of the sociopolitical context within which CPSAs operate (Rainey, 2008), it is also the case that it can impede progress by discouraging, rather than encouraging, transparency in actions and reporting (Edmondson, 1999; Lachman & Bernard, 2006).

Organizational Culture

In addition to the open, transparent reporting required by the sociopolitical context within which organizations in high-risk, high-profile industries operate, specific organizational characteristics have been shown to be important for child welfare and other human services agencies (Cyphers, 2001). Over-emphasis on formal structure, regulations, and reporting relationships are less likely to result in innovative organizations that can sustain improvement (Kenny & Reedy, 2006; Poskiene, 2006). Conversely, organizations with cultures that value affiliation, trust, and support are characterized by work unit behaviors that promote teamwork, shared decisionmaking, and open communication (Hartnell, Ou, & Kinicki, 2011). Within child welfare agencies, better casework has been associated with organizational cultures that promote practice improvements (Glisson & Green, 2011).

An organization's culture also affects the perceptions of its workforce (Sparrowe, 1995). Cultures that prioritize efficiency, formal structure, and productivity over more team-supporting behaviors often develop a workforce with negative perceptions of organizational leadership, mission, and commitment to developing the workforce (Edmondson, 1999). Existing research has shown that in some CPSAs, organizational culture is characterized by poor communication and workload demands that caseworkers believe are unreasonable and present obstacles to keeping children safe (Yamatani, Engel, & Spejeldnes, 2009).

Traditional Child Protection Practice Perspective

CPSAs employ and prepare a workforce with a unique mission and set of personal and professional challenges. Child protection work involves making potentially life altering decisions affecting children and their families. The work is fraught with uncertainties and ambiguities, while requiring staff to make determinations of child safety and predict future harm. Despite playing a crucial role in protecting vulnerable children, front line positions are often filled by persons

who may have college degrees, but not necessarily in social work or related disciplines (Barth, Lloyd, Christ et al., 2008). Turnover is typically high in these positions, with approximately 30%–40% turnover within two years (U. S. General Accounting Office, 2003).

Basic training in child protection is likely to focus on agency policies and procedures, with the unintended consequence of implicitly encouraging staff to selectively attend to certain case information at the potential expense of other case-idiosyncratic and complex information requiring a novel response or more time to unravel (Munro, 2008). In short, the regulatory demands of jobs in child protection may discourage critical thinking about case complexities.

Traditional child protection work draws on social work approaches that place a great deal of emphasis on establishing rapport in order to successfully engage children and families. Because the nature of the relationship between caseworkers and children and families is inherently coercive, with an explicit or implied threat that children may be removed from the home, there can be tension between establishing rapport and protecting children and families (Rooney, 2000). This is further complicated by the fact that front line CPSA workers must often make quick decisions, often under difficult circumstances and with incomplete or insufficient information (Munro, 2008). Errors in judgment of child safety can lead to placing a child in out-of-home care unnecessarily or failing to remove a child from the home who is later harmed. Both types of error (e.g., false positives and false negatives) can have devastating consequences to the child, the family, and the credibility of the CPSA.

Safety Culture in the Context of Child Protection

The complexity of CPSA practice requires an integrated, systems-focused solution that—at all organizational levels—prioritizes the safety and well-being of children (Weigmann, 2002; Wiegmann, Zhang, Von Thaden, Sharma, & Gibbons, 2004). Other high-risk, high-profile fields such as the nuclear power industry (Terence & Harrison, 2000), aviation industry (Merritt & Helmreich, 1996) and

healthcare (Vogus, Sutcliffe, & Weick, 2010) have begun to focus on advancing a safety culture in their organizations. As described earlier, there is general agreement that safety culture have a shared belief in the value of safety and a commitment to the following principles (Halligan & Zecevic, 2011):

- (1) Leadership commitment to safety;
- (2) Prioritizing teamwork and open communication based on trust;
- (3) Developing and enforcing a non-punitive approach to event reporting and analysis; and
- (4) Committing to becoming a learning organization.

Principle 1: Leadership is Committed to Safety

Successfully enabling a safety culture means that leadership will make safety a priority and establish a context that fosters open communication in the public agency (Vogus, Sutcliffe, & Wick, 2010). To enable a safety culture, effective leaders must advocate on behalf of their staff and their advocacy must emerge from understanding what is required to conduct high-quality child protection investigations and issues faced by staff at the ground level. The perspectives of front-line staff and supervisors should be well-understood and inform advocacy efforts. Effective leaders demonstrate their commitment and support to their staff through words and actions, not only training. This might include relying upon veteran highly competent investigators to serve as mentors to junior staff, and allowing opportunities for new staff to shadow skilled investigators (E. Munro, personal communication, June 29, 2012). Organizational leadership must trust their staff in order for their staff to trust them and shape the context in which a safety culture can develop and thrive.

In child protection, given the large number of investigations of maltreatment, a child death is a relatively rare event. Complacency regarding the quality of investigations may only be disrupted when a tragic outcome occurs. An organization with leadership committed to safety keeps potential failures in the foreground, and maintains continuous vigilance for organizational weaknesses that may

contribute to future adverse events (Weick & Sutcliffe, 2007). This means encouraging the free flow of information, including listening to staff concerns and providing responsive feedback on actions taken by agency leadership.

Principle 2: Prioritize Teamwork and Open Communication

Transparent and open communication both vertically and laterally is essential to the development of a less defensive organizational culture in which difficulties in practice can be discussed candidly. Safety efforts must focus not only on correcting errors in practice, but also anticipating and preventing future errors that could lead to a tragic case outcome. Critical thinking, particularly in the context of a team or workgroup, reinforces appreciation of case complexities, including conflicting views and interests of various family members and other stakeholders. Group discussion has the potential to uncover individual biases that can interfere with sound decisionmaking (Munro, 2008). In addition, valuable expertise is often found among experienced peers, not necessarily in the organization's hierarchy (Weick & Sutcliffe, 2007).

The high-risk, high-profile organizations referenced earlier in this paper have already identified the value of teamwork. In healthcare, teamwork has been associated with better patient outcomes, higher staff and patient satisfaction and a higher perception of overall quality (Singer & Vogus, 2013). These findings have led to an increased emphasis on team-based care and the broad dissemination evidence-based teamwork training programs.

Principle 3: Develop and Enforce Non-Punitive Approaches to Event Reporting and Analysis

Processes identified in other high-risk, high-profile organizations that foster more competent practice include the development of strategies for identifying, reporting, and managing practice errors. Also included are clear rules that distinguish reportable, non-punishable errors from missteps that are subject to penalties, and clear guidelines for reporting near misses (Reason, 1997; Weick & Sutcliffe, 2007).

Policymakers have the ability to direct resources and develop policy to support an organization's move away from "shame and blame" and toward processes that balance system and individual accountability (Dekker, 2007). The current approach to remediation and punishment limits opportunity for learning and improvement. Aviation and healthcare now understand this dynamic and have invested in confidential reporting systems and peer review processes (Larson & Nance, 2011). However, it is important to note that both industries also have federal legislation protecting the inquiry process. Pilots and clinical providers have a level of protection when they report their mistakes. Healthcare providers have additional layers of protection provided by their medical malpractice insurer and the hospital's risk mitigation processes. Unlike CPSA staff, healthcare providers are often shielded from at least some personal risk and public scrutiny (Larson & Nance, 2011).

Further, traditional reliance on serious incident reporting must be augmented by a blameless, confidential, reporting system (Gambrill & Shlonsky, 2001). Confidential, but not anonymous, reporting of error allows a system to uncover latent threats to safety. Systems from the highest levels will need to ensure confidentiality to maximize reporting. Confidential reporting should be an option for caseworkers and all other stakeholders who engage in direct practice, including private providers, foster parents and families of origin.

Principle 4: Become a Learning Organization

Caseworkers need to be able to learn from their mistakes and have access to expertise and state of the art knowledge in the field. Defensive cultures do not support the open discussion of issues faced in the field, mistakes made by staff, or potential solutions. Learning from mistakes is especially important to new staff to develop the skills necessary to do their jobs well, to understand that job performance is rarely error-free, and that not all errors are fatal. Without the ability to learn from mistakes, subpar practice habits are likely to develop if not caught and corrected. Well-intentioned personnel can become desensitized to deviations from standards which are

reinforced informally by supervisors or peers who may reward the wrong kind of excellence (such as routinely closing case investigations more quickly than policy requires, regardless of case complexity). This can lead to the evolution of an informal chain of decisionmaking that operates outside the organization's/agency's policies and procedures (Rzepnicki et al., 2012).

The ability, time, and encouragement to think critically are essential to the establishment of a learning environment. Relevant competencies include challenging assumptions, identifying and reflecting on anomalies, and considering potential adverse consequences of possible courses of actions. All employees, from line staff to top-level administrators are watchful for conditions or activities that can have a negative impact on agency operations, the conduct of investigations, or the well-being of children. Agency managers and supervisors acknowledge that there are times when the flexible application of agency procedural rules is appropriate in novel or highly complex circumstances.

Finally, CPSAs share responsibility for involving policymakers, stakeholders and the media in the system's development. Success and failures must be openly discussed, and to involve full stakeholder participation in the development of solutions. This is a process that involves a commitment to reflection and feedback, and is more than just learning, it is "a continuing effort to pinpoint subtle details, (and to) uncover capabilities that had gone uncovered" (Vogus, Sutcliffe, & Weick, 2010).

Paying continuous attention to key process indicators in order to catch problems early before serious problems arise is essential to the creation of and sustainability of a learning organization. However, no matter how good or careful our child welfare programs are, we will never be able to totally eliminate child fatalities (Perrow, 1984). Our best hope is to reduce serious injuries and deaths of children, and to learn from negative events when they occur. Below are few examples from Illinois and Tennessee where elements of safety science are beginning to be implemented.

Current Applications

The Illinois Experience

In an effort to move closer to becoming a safety culture where the potential for tragic case outcomes, including child deaths, is diminished, the Office of Inspector General (OIG) for the Illinois Department of Children and Family Services (DCFS) has been working to improve child protection decisionmaking.

State leadership expressed a *commitment to safety* through legislation that created the OIG in 1993. A statutory amendment added in 2008 requires the OIG to remedy patterns of error or problematic practices that compromise child safety as identified in death and serious injury investigations (20 ILCS 505/35.5, 35.6, 35.7). Each year, OIG staff conduct approximately 90 investigations of child fatalities in families known to DCFS (Office of Inspector General, DCFS, 2013). Based on investigation results, the office has the authority to make recommendations for change to the DCFS director, as well as pursue pilot projects, training, and supportive consultation to improve practice. The Inspector General is well-suited to lead such efforts, with a master's and doctorate in social work, many years of experience in a range of child welfare positions, and qualified personnel who include many social workers and former child protection staff. She and her investigators maintain frequent and regular communication with regional DCFS staff through phone and on-site visits. They are sympathetic to the complexities of practice and have been able to earn the confidence of many regional managers and supervisors upon whom they must rely to ensure that practice improvements are implemented.

Teamwork and open communication between the OIG, DCFS staff and administrators have been emphasized in the error reduction initiative. For example, an in-depth, mixed-methods study of child maltreatment investigations was initiated when it was recognized that many child homicides had had previous contact with DCFS involving allegations of cuts, welts, and bruises in infants and very young children (Office of Inspector General, DCFS, 2013). Results of data analyses were communicated to each regional office in writing and

through in-person meetings with OIG staff. Discussions with regional administrators and managers addressed findings related to local practice strengths and weaknesses. Following the discussions, on-site training of all child protection personnel conducted by the OIG focused on critical thinking, the use of a brief checklist to guide interviews with medical professionals, and the application of empirical knowledge to practice. Periodic feedback was provided to the teams as new performance data were collected, followed by tailored consultation to promote further improvement (Office of Inspector General, DCFS, 2012, 2013). In addition, a periodic FAQ newsletter was made available to child protection units across the state to clarify common areas of misunderstanding (a description of this investigation can be found in Office of Inspector General, DCFS, 2007, 2009, 2012, 2013; Rzepnicki et al., 2012). Problem-based learning was encouraged within the teams through the use of redacted cases that prompted critical discussion and group problem solving. This work represented some initial steps to becoming a *learning organization*. Key to the effort was an emphasis on helping staff understand that mistakes are inevitable, that there is value in using them as opportunities for learning, and that critical reflection on the sources of error can inform improvements not only in their own decisionmaking, but also at multiple points within the CPSA (Munro, 2008).

The error reduction initiative focusing on decreasing child fatalities continues with projects aimed at improving outcomes for pregnant and parenting teen wards and cases where mental health issues play a big role (Office of Inspector General, DCFS, 2013). It is evident that steps toward a fully functioning safety culture involve a protracted and incremental process. Much more work needed, since the results of efforts to date have resulted in uneven performance across the state. Attention has not yet been devoted to *developing a non-punitive approach to event reporting* and further development of strategies to better support supervisors and front line investigators are essential. Without these organizational improvements, changes in individual behavior are not likely to persist.

The Tennessee Experience

Tennessee, like many states, is challenged to ensure the quality and safety of its child protection services. Frustration and concern have led to various initiatives, plans, advisory panels, oversight groups and reporting requirements. In spite of these efforts over many years, Tennessee's partners in child protection—medical practitioners, members of law enforcement, and educators—have expressed limited confidence in the system's ability to keep children safe. Media reports on child deaths have led to a legal challenge to open the Tennessee Department of Children's Services (DCS) case records to the press in cases of fatality or near fatality, in the belief that public pressure will bring about needed changes.

In 2011, demonstrating leadership's *commitment to safety*, DCS partnered with Vanderbilt University's Center of Excellence for Children in State Custody to introduce safety science concepts to DCS, with learning activities structured on the Institute for Healthcare Improvement's Collaborative Model for Breakthrough Improvement.

To support this departmental initiative, DCS hired Master's degree-level staff licensed as mental health practitioners in 2011. Beginning in the summer of 2012, these staff started conducting root cause/event analyses in child fatality cases with direct involvement from responsible front-line staff and supervisors. These *non-punitive* analyses are being used to develop action plans and identify trends in order to facilitate *organizational learning* and increase the likelihood that future injuries or deaths can be prevented. For example, root cause/event analyses of infant deaths led to the identification of a number of interrelated factors creating barriers to identification and mitigation of environmental hazards. These factors directly informed the development of a new "safe sleep" initiative to prevent sleep-related infant deaths.

The department is also working with its university partners to adapt a previously validated safety climate survey for the child welfare system (Vogus & Sutcliffe, 2007). The information generated by this survey will assist the Department in its efforts to identify and

prioritize organizational changes needed to produce “collective mindfulness” among agency staff. Surveys of this kind are now widely used in other industries to measure staff perceptions. Like all measurement, assessments of organizational culture exist to facilitate communication (Lyons, Epstein, & Jordan, 2010). Results from this survey will help establish a language for driving culture change.

Conclusion

The quality of child protection work depends to a large extent on characteristics of the work environment and workforce, especially the critical thinking skills of caseworkers and supervisors. Defensive practice may develop within CPSAs as a response to social, political and media pressures to avoid tragedies. Defensiveness can create environments in which “shame and blame” displaces learning from mistakes. While mistakes are inevitable, CPSAs must begin to incorporate principles from safety science known to promote organizational cultures in which individuals acknowledge mistakes, learn from their peers and improve their critical thinking skills. In an increasingly complex world, it is essential to adopt a systems approach to understand how errors and breakdowns in organizational communication and quality control occur and how to support sound decisionmaking. CPSA leaders must move the organization beyond a culture of blame to embrace transparent, and open communications, build inclusive partnerships among stakeholders in child protection, and to set aside differences to make progress on the common goal of ensuring child safety.

References

- Barth, R.P., Lloyd, E.C., Christ, S.L., Chapman, M.V. & Dickinson, N.S. (2008) child welfare worker characteristics and job satisfaction: A national study. *Social Work*, 53(3), 199–209.

- Chassin, M. R., & Loeb, J. M. (2011). The ongoing quality improvement journey: next stop, high reliability. *Health Affairs*, 30(4), 559–568.
- Cyphers, G. (2001). *Report from the child welfare workforce survey: State and county data and findings*. Washington, DC: American Public Human Services Association.
- Dekker, S. (2007). *Just culture: Balancing safety and accountability*. Burlington, VT: Ashgate.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350–383.
- Gainsborough, J. F. (2009). Scandals, Lawsuits, and Politics: Child Welfare Policy in the US States. *State Politics & Policy Quarterly*, 9(3), 325–355.
- Gambrill, E., & Shlonsky, A. (2001). The need for comprehensive risk management systems in child welfare. *Children and Youth Services Review*, 23(1), 79–107.
- Geen, R., & Tumlin, K. C. (1999). *State efforts to remake child welfare: Responses to new challenges and increased scrutiny*. Washington, DC: The Urban Institute.
- Glisson, C., & Green, P. (2011). Organizational climate, services, and outcomes in child welfare systems. *Child Abuse & Neglect*, 35(8), 582–591.
- Halligan, M., & Zecevic, A. (2011). Safety culture in healthcare: A review of concepts, dimensions, measures and progress. *BMJ Quality & Safety*, 20(4), 338–343.
- Hartnell, C. A., Ou, A. Y., & Kinicki, A. (2011). Organizational Culture and Organizational Effectiveness: A Meta-Analytic Investigation of the Competing Values Framework's Theoretical Suppositions. *Journal of Applied Psychology*, 96(4), 677–694.
- Hatch, M. J., & Cunliffe, A. L. (1997). *Organizational theory*. New York: Oxford University Press.
- Hofmann, D. A., & Mark, B. (2006). An investigation of the relationship between safety climate and medication errors as well as other nurse and patient outcomes. *Personnel Psychology*, 59(4), 847–869.
- Kenny, B., & Reedy, E. (2006). The impact of organisational culture factors on innovation levels in SMEs: An empirical investigation. *The Irish Journal of Management*, 1, 119–142.
- Lachman, P., & Bernard, C. (2006). Moving from blame to quality: How to respond to failures in child protective services. *Child Abuse & Neglect*, 30(9), 963–968.

- Larson, D. B., & Nance, J. J. (2011). Rethinking peer review: what aviation can teach radiology about performance improvement. *Radiology*, 259(3), 626–632.
- Lyons, J. S., Epstein, R. A., & Jordan, N. (2010). Evolving systems of care with total clinical outcomes management. *Evaluation and Program Planning*, 33(1), 53–55.
- Merritt, A., & Helmreich, R. L. (1996). Creating and sustaining a safety culture – Some practical strategies (in aviation). *Applied Aviation Psychology*, 20–26.
- Morath, J. M., & Turnbull, J. E. (2005). *To do no harm: Ensuring patient safety in health care organizations*. San Francisco: Jossey-Bass.
- Munro, E. (2008). *Effective child protection* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Naveh, E., Katz-Navon, T., & Stern, Z. (2005). Treatment errors in healthcare: A safety climate approach. *Management Science*, 51(6), 948–960.
- Office of Inspector General, Illinois Department of Children and Family Services. (2007). Child endangerment risk assessment protocol (CERAP) report. *Report to the Governor and the General Assembly*. Chicago: Author. Retrieved from <http://www.state.il.us/DCFS/docs/OIGAn2007.pdf>.
- Office of Inspector General, Illinois Department of Children and Family Services. (2009). Error reduction. *Report to the Governor and the General Assembly*. Chicago: Author. Retrieved from <http://www.state.il.us/DCFS/docs/OIGAn2009.pdf>.
- Office of Inspector General, Illinois Department of Children and Family Services. (2012). Error reduction. *Report to the Governor and the General Assembly*. Chicago: Author. Retrieved from http://www.state.il.us/DCFS/docs/OIG_Annual_Report_2012.pdf.
- Office of Inspector General, Illinois Department of Children and Family Services. (2013). Error reduction. *Report to the Governor and the General Assembly*. Chicago: Author. Retrieved from http://www.state.il.us/DCFS/docs/OIG_Annual_Report_2013.pdf.
- Orr, S. (1999). Child protection at the crossroads: Child abuse, child protection and recommendations for reform. Los Angeles, CA: Reason Public Policy Institute.
- Perrow, C. (1984). The organizational context of human factors engineering. *Administrative Science Quarterly*, 28(4), 521–541.

- Poskiene, A. (2006). Organizational culture and innovations. *Engineering Economics*, 46(1), 45.
- Rainey, H. G. (2009). *Understanding and managing public organizations*. San Francisco: Jossey-Bass.
- Reason, J. (1997). *Managing the risks of organizational accidents*. Burlington, VT: Ashgate.
- Rooney, R.H. (2000) How can I use authority effectively and engage family members? In H. Dubowitz & D. DePanfilis, Eds., *Handbook for child protection practice*. Thousand Oaks, CA: Sage Publications, 44–51.
- Rzepnicki, T. L., Johnson, P. R., Kane, D. Q., Moncher, D., Cocconato, L., & Shulman, B. (2012). Learning from data: The beginning of error reduction in Illinois child welfare. In S. G. M. T. L. Rzepnicki, H. Briggs (Ed.), *From task-centered social work to evidence-based and integrated practice*. Chicago: Lyceum.
- Shlonsky, A., & Gambrill, E. (2001). The assessment and management of risk in child welfare services. *Children and Youth Services Review*, 23(1), 1–2.
- Singer, S. J., & Vogus, T. J. (2013). Safety climate research: taking stock and looking forward. *BMJ Quality & Safety*, 22(1), 1–4.
- Sparrowe, R. T. (1995). The effects of organizational culture and Leader-Member Exchange on employee empowerment in the hospitality industry. *Hospitality Research Journal*, 18(3), 95–109.
- Terence, L., & Harrison, L. (2000). Assessing safety culture in nuclear power stations. *Safety Science*, 34(1), 61–97.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2012). *Child Maltreatment 2011*. Available from <http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/child-maltreatment>.
- U. S. General Accounting Office. (2003). *Child welfare: HHS could play a greater role in helping child welfare agencies recruit and retain staff*. Retrieved from <http://www.cwla.org/programs/workforce/gaohhs.pdf>.
- Vogus, T. J., & Sutcliffe, K. M. (2007). The safety organizing scale – Development and validation of a behavioral measure of safety culture in hospital nursing units. *Medical Care*, 45(1), 46–54.

- Vogus, T. J., Sutcliffe, K. M., & Weick, K. E. (2010). Doing no harm: Enabling, enacting, and elaborating a safety culture in health care. *The Academy of Management Perspectives* 24(4), 60–77.
- Weick, K. E., & Sutcliffe, K. M. (2007). *Managing the unexpected* (2nd ed.). San Francisco: Jossey-Bass.
- Weigmann, D. A. (2002). A synthesis of safety culture and safety climate. Urbana-Champaign, IL: University of Illinois at Urbana-Champaign Aviation Research Lab.
- Wiegmann, D. A., Zhang, H., Von Thaden, T. L., Sharma, G., & Gibbons, A. M. (2004). Safety culture: An integrative review. *The International Journal of Aviation*, 14(2), 117–134.
- Yamatani, H., Engel, R., & Spejeldnes, S. (2009). Child welfare worker caseload: what's just right? *Social Work*, 54(4), 361–368.

Section 3:

Reframing Perception and Response

Soft is Hardest: Leading for Learning in Child Protection Services Following a Child Fatality

Andrew Turnell

*Resolutions Consultancy
Victoria Park, Western
Australia*

Eileen Munro

London School of Economics

Terry Murphy

*Department for Child
Protection
Government of Western
Australia, Perth*

The way in which a child protection agency responds to a child fatality always has a strong influence on subsequent practice. Very often, organizational responses and child death reviews are punitive and escalate an already anxious and defensive organizational culture. This paper outlines an alternative approach that not only helps staff to manage their emotional responses but also encourages and prioritizes a learning culture within the organization throughout the crisis and in the longer term.

In this special issue on preventing severe child maltreatment injuries and fatalities, we focus our paper on how child protection leaders can respond constructively to a serious child injury or death so the responses themselves do not generate adverse effects but rather assist the organization to become focused on learning how to improve protective services. The traditional reaction to a troubling death usually involves public declarations by politicians and child protection leaders that “lessons will be learned.” Much effort then goes into child death reviews to find those lessons and to develop recommendations on how to avoid mistakes or practice deficiencies in the future. Such reviews have been major drivers of change in child protection services in many countries (Brandon et. al., 2009; Kuijvenhoven & Kortleven, 2010; Munro, 2004, 2005, 2010; Parton, 2008), but we contend that these types of reviews have also often been counterproductive.

Societies increasingly hold the view, fed by sensationalist media coverage, that a child death is proof that some professional did something wrong. Public criticism and the political salience of these events biases the change agenda towards “top down,” rapidly implementable, set-piece solutions such as increasing practice monitoring and compliance measures. Such changes tend to be instigated in an atmosphere of distress and blame, encouraging greater defensiveness in an already anxious workforce. This narrow approach to creating change ignores the complex reality of what it means to make predictions and take action in conditions of uncertainty that operate in and around every child protection case.

The heart of a child protection system’s capacity to improve children’s safety lies in the quality of service that front line workers offer to families. Procedures and monitoring are important, but they have little value unless agency practitioners have the skills to:

- Think through family strengths and dangers, enabling explicit risk assessments,
- Lead explicit decisionmaking about the best course of action for children, and
- Engage with families to help them to change

There is a saying in management that “the hard is easy and the soft is hard.”¹ Deliverables such as legislative change, a policy rewrite, a new computer system, an organizational restructure, a child death review, compliance measures, or adopting a particular practice model, while challenging to implement, are the more brick-like components of an effective child protection organization. They are necessary but not sufficient. The harder work almost always lies in the soft stuff, the mortar that holds these tangible elements together. The “soft” stuff resides in the skillfulness of the professionals, which is determined by the human attitudes and responses to the uncertainty and anxiety of child protection work that either elicit or diminish intelligence and practice depth.

Transforming child protection practice depends on professional leadership focused on the actual interactions frontline practitioners have with parents and children, paying attention to the emotional as well as the cognitive dimensions of the work, and continually learning about the impact of the work on children and families. The defensive compliance culture that has become dominant in many jurisdictions prioritizes deliverables that can be counted, and constantly undermines the capacity to pay attention to what counts most, namely the skills: (a) to determine how safe children are, (b) provide effective help, and (c) find out whether children are being helped, or possibly even harmed, by their contact with child protection services.

In our view, the most critical “soft” issue within and around child protection is the pervasive and debilitating problem of anxiety. Western culture in general, and child protection agencies in particular, has been increasingly co-opted into the myth that every risk is calculable, every problem solvable and every death chargeable to some professional’s account. This sensibility escalates blame and defensiveness (Ferguson 2004, 2011; Munro, 2010; Parton 1998; Reder, Duncan, & Gray, 1993).

1 The authors thank Dan McCormick from Connected Families for bringing it to our attention. For more information see: http://www.tutor2u.net/business/people/hrm_hard_soft.asp and <http://www.strategy-business.com/article/ac00034?gko=f5243>; Covery, S. R. (2011). *The 3rd alternative: solving life's most difficult problems*. New York: Free Press.

The anxiety engendered by child protection in turn feeds anxiety's boon companion, the impulse to "get it right." Whether it's the politician, the CEO, the head of the child death inquiry team, the policy writer, the supervisor or the practitioner, all may go along with the idea that they can come up with the right *something* that will prevent future tragedies—whether that right *something* be legislation, policy, theory, practice model, training program, assessment method, decisionmaking tool or compliance measure.

In these conditions human beings become more defensive and display their worst dysfunction in the face of anxiety and fear. Child protection leaders who want to grow an understanding of practice (Chapman and Field, 2007) and create a culture of continual learning must constantly challenge the corrosive effects of anxiety and the compulsion to pursue unattainable certainty. There is no more critical point at which leadership for learning must be demonstrated than when a child protection organization faces the crisis of a child death.

Just as reactions to children's deaths have been so influential in creating defensive, overly bureaucratized systems, so a more constructive reaction can be pivotal in developing a system in which workers feel supported in coping with the anxiety and uncertainty inherent in the work. To illustrate our thinking about constructively and proactively leading a child protection agency through the aftermath of a challenging fatality, we use a case study from Terry Murphy's experience as Director General of the Western Australian Department for Child Protection. In the text that follows, the italicized sections are Murphy's first record of the scenario and how it was managed.

The case involved a toddler who had been removed from her birth parents and placed with a couple in the extended family who themselves had a past history of alcohol abuse and domestic violence. Nine months after placement, the child suffered a major head trauma and died a few days later. A member of the kinship family was the prime suspect. This situation was of course a massive crisis for the birth and caring families, and this

was made significantly worse by the fact that on admission to hospital, the case drew extensive media and political attention. This continued up to and well beyond the child's death.

Leadership Principles

The next section of the article presents five key leadership principles to address this situation.

1. Avoiding hindsight error and being rushed into blaming someone.

"Whatever the initiative, policy or program, in the end you are only as good as how you deal with the next child death" (Tony Morrison to the New Zealand Children Youth and Family Services Senior Management).

Handling well the crisis of a child death involves:

- Intellectual work, finding out and appraising the facts of the situation.
- Emotional work, managing the widespread anxiety, distress, and anger to create time for a measured judgment of practice.
- Engagement with a range of different groups: politicians, the media and public, the birth and caregiver families, and the workforce.

With hindsight, it may seem that in this case, it was obviously risky to place a child with kin who had a history of alcohol abuse and violence. With hindsight, judging by the outcome, it seems clearly to have been a faulty decision; and the media and the public had a predictably clear disposition to blame child protection services for this decision. However, for workers operating with only foresight, and weighing up both the risks and the benefits to the child of this placement compared with other options, the risk calculus looked quite different. A first task is *not* to jump to conclusions but to seek to understand the professional reasoning behind the actions.

The first few days were dominated by a scramble to assemble the facts, and at this time it was vital for the CEO to help everyone maintain a calm head and to synthesize the inevitable complexity of the facts to determine the key issues, looking both at what was done well and what was not, determining whether culpability was likely, and the extent and nature of the organizational vulnerabilities. This synthesis informed clear and measured advice to staff, the Minister, and the public channels.

The facts, in essence, were that there were clear indications that there had been risks in the placement, but that these had been identified and assessed as low given there had been a lengthy period of sobriety and non-violence. It was also found that while the placement was monitored regularly initially, when the file was transferred to a new office there was a delay in case assignment, and the quality of the contact with the family diminished.

While the certainty afforded by hindsight is often compelling, it is vital to lead with a sophisticated and compassionate understanding of managing risk, in order to avoid the knee-jerk reaction of blaming workers for tolerating some degree of risk. All child protection interventions and placements involve risk—requiring professionals to weigh the different risks and benefits of possible courses of action and choosing the one that looks most likely to be best for the child. The fact that, on this occasion, something considered to be of low probability occurred is in and of itself not evidence of a poor decision since, by definition, low probability events do occur, albeit infrequently.

2. Managing political and public reactions

A good working relationship between the CEO and the Minister (or the political leadership relevant to the particular jurisdiction) is essential as major crises demand the involvement of the responsible political leader. So crisis management involves close cooperation of the CEO and the Minister if it is to be effective. While the gathering

and assessment of the facts needs time, the CEO in concert with the Minister must respond promptly to external demands for information. The immediate media and political response, in this case as in general, needed to communicate two things clearly:

- Acknowledge the seriousness of the tragedy and that the thoughts and prayers of the Minister, the agency and the workers are with the family.
- Explain that police and departmental investigations are being expedited and that a detailed public statement will be provided at the earliest opportunity. Holding this line requires discipline in the face of the inevitable intense pressure from the media and political opponents to appear in public and respond to statements that rush to judgment.

Enough facts were assembled in the three days following hospitalization that the CEO and the Minister were in a position to hold a press conference to report initial findings. After this, the CEO conducted several live radio interviews—a good opportunity for clear messaging since there was no risk of subsequent editing distorting the message. The media conference was packed and aggressive. The Minister made a general statement of concern for the family and said that investigations were continuing, and that the CEO would provide the details that were now known.

The media conference was long and exhaustive, with close questioning on the placement assessment process and the monitoring of the child, with the CEO emphasizing that no culpability by a member of staff was evident. It was also stated clearly again that those inquiries were necessarily ongoing. Perhaps most importantly, the CEO indicated that, if shortfalls in the Department's performance were identified, then these would be faced and he would accept responsibility.

Media messaging and political management continued in this vein, through the child's death and beyond for around two weeks. Calls for immediate and independent public inquiries

were made by the media and opposition politicians, and were met with a commitment to expedite departmental inquiries and take any necessary action; and pointing out those standard procedural inquiries by the Ombudsman and the Coroner would occur in due course. During this period, the CEO continually talked to the many professional stakeholders to prevent and address the potential for their anxieties to lead to destructive public statements.

3. Supporting the families

In the maelstrom of crisis management, it is essential not to lose sight of the core work of the child protection agency, which is to keep children safe, as well as support families and assist them to do so. In this case, practical and emotional support had to be extended to both the birth and foster families, and the risk of conflict between these families mitigated. Transport and accommodation were provided as necessary for attendance at the hospital, and staff were permanently stationed there, as well as accompanying families for various purposes at different times.

In a case of a child death in a family, the provision of emotional support is complicated by the necessary investigations, both by police regarding the circumstances of the death and child protection authorities regarding the safety of other children in the family, that need to occur concurrently. Establishing a working relationship with the families, demonstrating that there will be no rush to judgment even when precautionary actions with respect to the placement of other children may need to be taken, and clear and constant communication are all fundamental.

4. Supporting staff

Creating the space for risk-sensible learning rather than entrenching risk aversion while the ramifications of a child fatality unfold depends on two key factors. First, proactive management of the external political environment in which the agency operates, and, secondly, the extent to which the agency has already built resilience

in the face of inherent anxiety. This second factor requires persistence and consistency on the part of senior management. Two key messages communicated to all new staff directly by the CEO, and to all staff in the organization frequently and whenever there was an opportunity are indicative of how chipping away at defensiveness and building resilience needs to occur over time. In this agency, these messages have been:

- First, “our work is anxious work; as a child protection worker, never carry anxiety alone; always share it with your supervisors so it is carried together, including with all other levels of management, as necessary.”
- Second, “given the nature of our work, tragedies can occur. If a tragedy occurs on your watch, and you have done your best and have been open and frank about what has occurred, your bosses will stand with you, including the CEO, who will be explaining the situation in front of the TV cameras, if necessary.”

As much as a CEO and a child protection organization hope not to be tested by these commitments, tragedies do occur, and CEOs and organizations are tested. With every test handled well, trust and resilience increases. Any failed test has an exponentially greater negative impact. Progress is incremental because deep in the history of every child protection organization will be the large or small stories of where blame usurped responsibility and learning.

In this case example, visible support and sensible management by the CEO and senior staff were essential:

The CEO maintained a highly visible dialogue about the case across the organization. Emails to all staff ensured that they knew of the tragedy prior to its appearing in the media, and showed recognition of the anxiety that this causes for all staff, about their own cases and about how they will or will not be supported. The emails thanked staff for their tireless efforts in the face of the tragedy, and provided assurance that the organization would support the staff, and asked staff to support each other. Calls to the responsible managers and visits

to the districts directly involved by the executive directors occurred quickly. All organizational messaging to the staff was consistent.

Some quotes from CEO emails to all staff are indicative:

This is a tragedy, and our hearts go out to the child and her family. My thoughts and gratitude also go to all the staff who have been involved with this child and her family, to those who have worked tirelessly . . .

The Minister has asked me to investigate this case, and that is underway now and will take at least a few weeks. As I explained on radio, this is to look at how we have followed our procedures, and identify any gaps or missed opportunities in order to improve how we work. This is not, as some have advocated, in order for 'heads to roll'. If there are issues with our practice, we will take responsibility and I will take that responsibility.

Every one of us feels this event and the intense scrutiny it brings. As well as turning your thoughts to the family, I ask you to do what we also do best, to support each other through this difficult and testing time.

And later:

In the field, anxieties have been raised for all the children in our care and the child protection risks that we manage every day. The scrutiny has been intense. It also seems that wherever there are issues that highlight the difficult and uncertain environment in which our work occurs, and there always are, someone has been ready to comment in the media.

It is incredibly important that we all pull together at this time. If you have particular worries and need support, please raise it with your manager, and I will be involved with issues that come to my attention.

As well as doing it tough, I have been very proud of how we have managed ourselves and the support that we have shown each other, and I have greatly appreciated the support I have received. Most importantly, we continue to do fine work with families and children.

The success of this strategy is evidenced by the feedback received by the CEO; some representative examples are:

... a very brief message to thank you on behalf of the management team and all the staff here ... for your support during what has been a very difficult time. Your backing and reassurance has been very important to all involved.

Staff were particularly grateful and reassured by your statement that you would take the responsibility for any shortcomings identified in this case.

Just wanted to say how much I appreciated receiving this email last night. It has been a baptism of fire ... and most days have been pretty tough, especially the last few ... I am confident though that we will get through this time and I am especially grateful for the support.

And in retrospect, from the local manager:

I experienced the entire process within a trusted and safe environment free from fear, where I was able to lead my district whilst you led the department around the wider responses to media and the Minister - I felt secure in knowing you 'had my back' and trusted my leadership.

I felt enabled and empowered, understanding that you were ensuring support that went beyond platitudes and resulted in resources being made available expediently, and knew that the corporate family cared from the top down.

While we have so far addressed the need to manage the distress and anxiety around a child's death, it is also necessary to examine practice and consider what can be learned from it. Sometimes, it becomes clear that practice was sound and defensible, and the child's death arose from factors that were not predictable or preventable. In a study of forty-five child death reviews in the United Kingdom, the inquiry team concluded in 25% of cases that no professional lapse or error had contributed to the fatality (Munro, 1996).

When flaws in practice are identified, they need close scrutiny. Often, people want to rush to blame the individual at the centre of the action, and think they can solve the problem by getting rid of this "bad apple." This has been a common pattern in child death reviews in many jurisdictions, but its limitations are evidenced in how the same problems keep coming up: "Little new ever comes out of inquiries into child abuse tragedies" (Duncan, Reader, & Grey, 1993b, p. 89). However, as other disciplines such as health and engineering have found, a poor outcome is rarely due to malicious or incompetent individuals, but usually arises from a complex interplay of factors in the work context and the individual that come together to produce an adverse result (Munro, 2005; Fish, Munro, et al., 2008). Adopting a more systems view of the complex causation of problems has arisen because:

The more safety researchers have looked at the sharp end, the more they have realized that the real story behind accidents depends on the way that resources, constraints, incentives, and demands produced by the blunt end shape the environment and influence the behaviour of the people at the sharp end (Reason, 1997, p.126).

An inquiry and examination of a fatality therefore must not stop when it finds human error, but needs to delve into *why* people acted as they did. This may involve organizational processes, culture, or resources, as well as factors in the individual such as their learning—including the training they may have undertaken, level of expertise,

etc. Even when there is no evidence of professional culpability, close scrutiny of practice may show up areas of organizational weakness—what Reason (1997) calls the “latent conditions for error” that, left unchanged, make future error more likely.

5. Developing expertise

Managing the distress and anxiety that emerges throughout an agency following a child’s death is necessary, not just as a feature of compassionate management, but also because organizational competence in managing anxiety and uncertainty is essential to enable staff to put their primary focus on helping children, not on covering their backs in case of trouble. Above everything, child protection is a human undertaking, and good outcomes depend on the caliber and capacity of the human beings who are doing the work. If this is true, then those of us who are child protection leaders need to control our obsession with models, policies and compliance, and distil a clear vision of the sort of people we believe can best carry out the work.

We would suggest that at every level we are seeking people of imagination, compassion and intelligence who can think themselves into and through the complexity and the wicked nature of child protection problems. These are people who can apply an acute intelligence to complexity that arises not just from the families themselves but is also generated by the organization and the political milieu that surrounds the child protection undertaking. Rather than being defensive and risk averse, child protection organizations that wish to function well and with high reliability (Bigley & Roberts, 2001; Roe & Schulman, 2008) must recruit, develop and sustain professionals who have the courage to embrace the reality that child protection work at every level is always uncertain.

For a child protection service to be able to learn about how well it is doing, it needs good feedback about both the processes and the outcomes of the services provided to families. In many jurisdictions, managerial oversight focuses primarily on service inputs and outputs. Have workers followed procedures? Did they meet

prescribed timelines? How many children have been removed from their families? Over time, the importance of compliance with these indicators has come to dominate practice so that attention is distracted from questioning the *quality* of work, and the *impact on child and family* (Munro, 2010; Tilbury, 2004). Easily measured aspects of practice fail to provide a good enough picture of quality, so agencies need to create more sensitive ways of examining the quality of practice.

The foundation for developing a strong workforce expertise lies in creating an organizational culture that sustains and deepens critical reflection and continual learning. This requires time for “slow thinking,” and needs to rest on an understanding of how the work draws on people’s intuitive and analytic reasoning skills, as well as their emotions (Kahneman, 2011).

To achieve this requires staff feeling supported and able to be open about their work, having the courage to examine it critically, and being willing to explore with the whole agency what is going well and badly. This is essential if an agency is to have any chance of managing the real work of child protection that occurs in the relationships between professionals and service recipients. The key leadership task here is to set up strategies and structures to elicit and grow practice wisdom built from workers and supervisors being willing to expose, explore and think through their practice, and make their views vulnerable to the experience of children and parents, foster caregivers and other stakeholders. These processes have been described as creating a culture of appreciative inquiry around frontline practice (Turnell, 2004, 2006, 2012). This is fragile work, and one of the hardest of “soft” tasks in leading a child protection agency. Since child protection practice is so pressurized, it is always possible to find problems and practitioners always feel vulnerable about their work.

Conclusion

courage [kur-ij, kuh-]: The mental or moral strength to venture, persevere, and withstand danger, fear, or difficulty.

—Webster's Dictionary

Our capacity to prevent severe child maltreatment depends above everything on building and sustaining intelligent, compassionate and imaginative staff who have the courage to engage with the complex circumstances our societies' most vulnerable children live in. What makes the task harder is that these practitioners must do this work within risky environments and (often) fearful organizations.

The child protection field, which must daily face and respond to wickedly complex social and organizational problems, has generated a perverse intellectual culture, hungry for set-piece linear causes and answers whether in policy, practice guidance or casework. What has come to count most in child protection are things that can be easily counted and what counts most, the actual interactions between families and professionals, is often overlooked.

Sadly, these bad habits of thinking seem only to escalate when a child protection system is faced with a child fatality. Child death inquiries repeatedly manufacture the notion that the cause of the fatality can be isolated, those culpable identified, and then new procedures can be put in place to make sure the tragedy will never happen again. We would suggest that over 40 years of refining this linear approach to fatalities has led to little improvement and in fact made our systems significantly more defensive and anxious.

Determining culpability for a fatality, to the extent it can be determined within a child protection system is complex and imprecise. Approaching such crises as if an exact truth can be ascertained and blame allocated to particular workers or practices overlooks the complexity of the systemic issues and the organizational context for failure. As Reason states:

Rather than being the main instigators of an accident, operators tend to be the inheritors of system defects created by poor design, incorrect installations, faulty maintenance, and bad management decisions. Their part is usually that of adding the final garnish to a lethal brew whose ingredients have already been long in the cooking (Reason, 1990, p. 173).

We are not seeking here to erase individual responsibility rather we are seeking to recontextualize it. The issue of responsibility needs considerable rethinking if a truly systemic approach is to be applied to child fatalities. Recognizing human error and dealing with that with the individuals involved remains essential. At the same time explicit consideration of the balance that needs to be struck between addressing individual and organizational issues and the consequent organizational messages from leadership needs much more discussion. Moreover, to the extent that individual error must be remediated, it is vital to avoid the simplistic trap of "hanging an individual out to dry."

It is often said that the Chinese word for crisis is opportunity, but the Chinese word for crisis is actually formed by two characters representing danger and opportunity. The opportunity available to child protection professionals within the crisis of a child fatality can only be won through courageous and purposeful leadership across the organization and we have endeavored here to articulate some of our thinking about what such leadership looks like in practice.

Competence is often defined more in its absence than in its presence. The nuances and particularities of leadership that is generative rather than defensive in the face of crisis are hard to capture. Since the impact of child fatalities is such a defining moment for any agency and there is so little written about how to constructively lead in this context, we are convinced that this is a discussion that needs considerably more attention in the child protection field.

References

- Bigley, G., & Roberts, K. (2001). The incident command system: high-reliability organizing for complex and volatile task environments. *Academy of Management Journal*, 44(6): 1281-1300.
- Brandon, M., Bailey, S., Beldersonm P., Gardner, R., Sidebottom, P., Dodsworth, J., Warren, C., & Black, J. (2009). *Understanding serious case reviews and their impact: a biennial analysis of the serious case reviews 2005-7*, London: Department for Children, Schools and Families. Retrieved from [https://www.education.gov.uk/publications/eOrderingDownload/DCSF-RR129\(R\).pdf](https://www.education.gov.uk/publications/eOrderingDownload/DCSF-RR129(R).pdf).
- Chapman, M., and Field, J. (2007). Strengthening our engagement with families and increasing practice depth. *Social Work Now*, 38, 21-28.
- Fish, S., E. Munro, et al. (2008). Learning together to safeguard children. London, SCIE.
- Kahneman, D. (2011). *Thinking, fast and slow*, Farrar, Straus and Giroux.
- Kuijvenhoven, T., & Kortleven W. (2010). Inquiries into fatal child abuse in the Netherlands: a source of improvement? *British Journal of Social Work*, 40, 1152-1173.
- Ferguson, H. (2004). *Protecting children in time: child abuse, child protection and the consequences of modernity*. Basingstoke: Palgrave.
- Ferguson, H. (2011). *Child protection*. London: Palgrave.
- Munro, E. (2004). The impact of audit on social work practice, *British Journal of Social Work*, 34, 1077-1097.
- Munro, E. (2005). Improving practice: child protection as a systems problem, *Children and Youth Services Review*, 27, 375-391
- Munro, E. (2008). *Effective child protection* (2nd Edition). London: Sage Publications.
- Munro, E. (2010). *The Munro review of child protection part one: a systems analysis*. London: Department of Education.
- Parton, N. (2008). The 'change for children' programme in England: towards the preventative-surveillance state', *Journal of Law and Society*, 35(1), 166-187.

- Reason, P. (1990). *Human error*. Cambridge, Cambridge University Press.
- Reason, J. (1997). *Managing the risks of organizational accidents*. Aldershot, Hants, Ashgate.
- Reder, P. Duncan, S., & Grey, M. (1993a). *Beyond blame – child abuse tragedies revisited*. London: Routledge.
- Reder, P., Duncan, S., & Gray, M. (1993b). A new look at child abuse tragedies. *Child Abuse Review*, 2, 89–100.
- Roe, E., & Schulman, P. (2008). *High reliability management: Operating on the edge*. Palo Alto, CA: Stanford University Press.
- Tilbury, C. (2004). The influence of performance measurement on child welfare policy and practice. *British Journal of Social Work*, 34, 225–241.
- Turnell, A. (2006). Constructive child protection practice: An oxymoron or news of difference? *Journal of Systemic Therapies*, 25(2), 3–12.
- Turnell, A. (2012). *Signs of Safety: a comprehensive briefing paper*, Perth: Resolutions Consultancy.
- Turnell A., Lohrbach, S., & Curran, S. (2008). Working with the ‘involuntary client’ in child protection: lessons from successful practice, pp. 104–115. In M. Calder (Ed.) *The carrot or the stick? Towards effective practice with involuntary clients*, London: Russell House Publishing.

Effective Communications Strategies: Engaging the Media, Policymakers, and the Public

Allison Blake

*State of New Jersey
Department of Children &
Families*

Kathy Bonk

*Communications
Consortium Media Center*

Daniel Heimpel

*Fostering Media
Connections*

Cathy S. Wright

Clarus Consulting Group

Too often, strategic communication is too little, or comes too late, when involved with a child fatality or serious injury. This article explores the challenges arising from negative publicity around child safety issues and the opportunities for communications strategies that employ a proactive public health approach to engaging media, policymakers, and the public. The authors provide a case study and review methods by which child welfare agencies across the nation are building public engagement and support for improved outcomes in child safety while protecting legitimate confidentiality requirements. Finally, the piece articulates the rationale for agency investments in the resources necessary to develop and implement an effective communications plan.

Acknowledgements: The authors would like to thank Kristie McCullough, senior consultant at Clarus, for her editorial contributions.

Child safety is a public health issue too often in search of a public voice. At the same time, child deaths and serious injuries of those connected to a child welfare system tend to reach public attention only during a crisis.

The public's perception of child welfare in the United States is generally painted by media reports of isolated cases of tragedy. Not only is this often an inaccurate picture of the child welfare system, but worse, it drives public will against that system's leaders and leaves them especially vulnerable to the fallout that occurs when cases of severe abuse or child death hit the front page and television news. Public opinion research (Lake, 2009–2013; Triad Research, 1995–1996) and select analysis of media coverage around child fatalities show that the gap between public perception and the realities of child welfare leave the system wanting for resources and allies. And politicians may respond with crisis-driven policies that are not the best for keeping children and teens safe, ensuring their well-being, and supporting families.

Child welfare professionals struggle to understand why they so frequently are left standing alone on the firing line of the media, policymakers, and the public. Charged with oversight and investigation, child welfare agencies usually are called upon to be the face of cases involving child abuse or neglect—but are by no means the only public entity to have some contact with the family. Dedicated child welfare workers are painfully aware that by the time an adverse event occurs, children and their families may have passed through the jurisdictions of a range of educational, medical, social, law enforcement and judicial agencies, including private providers and extended family members. Child welfare professionals, from leaders to front line workers, often find themselves under orders from the family court judge, in the role of *de facto* manager of a revolving door team of public and private agencies, community groups, and family members. They usually have limited authority but are expected to take full responsibility. And most often, the child welfare administration winds up alone in front of a microphone, defending decisions about the child in their custody—and often in a no-win situation.

Historically, child welfare agencies have operated under a culture of confidentiality and of standing alone as a last resort for children in need of care. But today's child welfare leaders know there is another, more positive story that represents the vast majority of their work: protecting children, finding them a safe refuge, reuniting them with birth parents, or securing a life-long adoptive or kinship family wherever possible.

This article explores the challenges arising from publicity around child safety, including fatalities, as well as efforts to transform systems. The authors' aim is to put forward examples of opportunities for communications strategies that employ a proactive public health approach to engaging media, policymakers, and the public. We review methods by which child welfare agencies across the nation are building public engagement and support for improved outcomes in child safety while protecting legitimate confidentiality requirements. A case study based on experiences in New Jersey explains how these strategies were deployed. Finally, we articulate the rationale for agency investments in the resources necessary to develop and implement an effective communications plan.

Shifting the Paradigm

Harry Spence, former director of the Massachusetts Department of Children and Families, knows what happens when a case of severe abuse or worse, child death, hits the front page. "Atrocities to children are the most fundamentally horrific events that people face," Spence said in an interview (Heimpel, 2010). "It is admirable that human beings are horrified. The difficulty is that the response becomes deeply irrational."

Irrationality is an ineffective strategy in dealing with a population-wide public health threat. Instead, one must endeavor to contextualize the myriad factors that contribute to tragic situations including child fatalities, and to create an awareness of the pervasiveness of that threat: to develop adequate long-term visions for prevention, to stop the abuse, and to foment media relations that can withstand the inevitability of tragic child deaths.

The news media inhabits the divide between the public's understandable anger and bewilderment over a child's death and the child welfare leader's office. Too often, both child welfare agencies and the media outlets covering them develop an adversarial relationship—one driven more by a chasm of information than by any real enmity.

When a child death occurs, reporters start reporting. Confidentiality laws and a pervasive culture of confidentiality within agencies hold administrators' tongues, leaving a vacuum of information. Reporters turn to sources who will talk—often detractors of the agency in question—and the child welfare administration misses an opportunity to fully present the context of the tragedy as a symptom of a larger public health crisis.

The agency becomes the scapegoat of an angry public. Their practices are dragged into the light, explained with little historical context and more often without the broader public health frame that would more clearly define child fatalities for what they are: consequences of high poverty rates, drug and alcohol abuse, and the lack of economic investments that too often result in certain neighborhoods being patently more dangerous than others (Dwyer, 2011). Instead of turning the moment of tragedy into one of examining the fundamental issues that led to it, the moment instead becomes a draconian exercise in the public venting its anger at the organization—which is actually doing the most to stop the tragedy in the first place.

Politicians, often driven by anecdote rather than comprehensive reality, respond to child death by firing the heads of child welfare agencies. Or directors, fearful of losing their jobs, investigate and fire front line social workers. The irrationality of the moment often creates a situation where someone must be held accountable—even if the “tragedy” is the fault of the society writ large.

Child welfare agencies are, in effect, the last line of defense in the public health goal of stopping preventable child fatalities, yet they are often seen as the sole protector of children. This is due, at least in part, to the current legal and practical adherence to a culture of confidentiality present in many agencies, coupled with a dearth of responsible, contextualized, and comprehensive media coverage

produced by mainstream media outlets. To achieve a level of understanding about the endemic societal factors contributing to preventable child death will require a continued loosening of confidentiality laws and practice, coupled with a higher standard of journalism in covering these tragedies.

Confidentiality Laws

Juvenile dependency courts are “presumptively closed” in 28 states (Kapalko, 2012), meaning that a journalist seeking to cover the proceedings must prove that he or she has a legitimate interest in the functioning of the court and/or a particular case. In 24 other states, these hearings are “presumptively open,” meaning that the burden is on the court to make an objection to a journalist’s presence.

Despite pervasive fear that media access will result in irresponsible coverage of the foster care and juvenile dependency system, there has been no evidence of journalists causing clear, undue harm in those jurisdictions where the courts are open. Further, many notable judges (Edwards, 2004) and organizations representing those judges (Resolution No. 9, 2005) have been in favor of the antiseptic qualities they believe an open court will provide. Anecdotally (California Assembly Judiciary Committee 2011), there is a strong association between system-based coverage and substantive reform in both the juvenile dependency and child welfare systems.

In January, 2012, Judge Michael Nash, presiding judge of Los Angeles County’s juvenile court, issued an order clarifying procedures by which a journalist could access hearings in his court (Nash, 2012). The order assumes that journalists have a “legitimate interest” in the hearings, and thus places the burden on the court to argue why they do not—or in what way their coverage may harm the child. Since the order, there have been no cases of harmful coverage, while many reporters have taken advantage of the access to file stories that more accurately described the system (Newton, 2012).

This is an important development because it creates the foundation of both of the two necessary advancements needed for a better response to preventing child fatalities: (1) it erodes the culture of confidentiality

prevalent in certain child welfare agencies while (2) giving journalists a deeper knowledge of how the system functions and the broad stresses it is under. But it is only part of the solution.

Even in closed states, not everything is confidential. If an agency has established a track record of transparency, reporters are more accepting of well-founded confidentiality boundaries. Agency leadership must clearly understand statutory proscriptions. It is a good practice to have a handout explaining those limitations. Beyond those restrictions, agency leadership should be transparent about whatever is not legally restricted, and be equally transparent about describing the boundaries of what cannot be disclosed. States have approached this differently. Some have sought advice from their federal oversight agencies in Washington, DC; others have sought legal advice. The federal Child Abuse Prevention and Treatment Act (CAPTA) (P.L. 111-320) does allow states to be accountable and transparent when child fatalities and near-fatalities occur without endangering anyone's safety. Guidance is available from the Children's Bureau Child Welfare Policy Manual regarding the scope of case-specific information that can be released without compromising confidentiality requirements (DHHS, September 2012).

A New Relationship

Child welfare agencies should understand that the movement toward increased transparency is afoot. Instead of fearing it, they must embrace transparency as an opportunity to teach the public about what factors contribute to child death and what the public's responsibility is in stemming those factors. By filling the chasm of information with constant communication, agencies can build the kind of trust necessary for journalists to take a measured tone in the face of severe child maltreatment and deaths (Heimpel, 2012).

The challenge for child welfare agencies will be what they do in the time between tragedies. Administrators should work hard to inform journalists about the realities of trying to protect children from the endemic problems of poverty and other conditions that transcend their agency responsibilities to children. By fomenting trust and

maintaining constant contact with journalists, child welfare leaders will be able to use the media as a partner in promoting safety and preventing fatalities as a public health issue. As evidenced by other public health campaigns, the news media plays a critical role. Reporters can do this when they are given access to information about the totality of the problem and the solutions to those problems. This requires not only public health-oriented mass media campaigns, but more importantly deep, constant explanation: something that is only available in a more transparent framework than currently exists.

Building the Framework through Proven Management Tools

When Allison Blake was appointed Commissioner of the New Jersey Department of Children and Families (NJDCF) in May, 2010, she faced the difficult task of uniting a fragmented agency—merging sister divisions, forging a leadership team, and removing artificial barriers to service delivery. Although the agency had made significant progress, its public image remained mired in the issues surrounding a seven-year-old settlement agreement (Charlie, 2003). Many traditional child welfare workers, child advocates, and providers were content to see the decree remain in place.

Several years later—through several difficult media events—NJDCF has made great strides toward transparent, aligned partnerships with its public and effective media communications. Commissioner Blake's strategy began not with tackling adverse publicity, but by first addressing the importance of a compelling narrative articulating a vision for the agency. Casey Family Programs has been a consistent partner with NJDCF, and have supported a variety of strategic initiatives with advice and funding, as well as the development of a strategic plan and communications plan.

The strategic planning process served as the basis for building a new, broad communications structure and an expectation for agency success. In addition to data collection, the planning process engaged more than 150 employees and external stakeholders in a conversation

about how, by working in alignment, all could contribute toward a common vision. Thus, these stakeholders are becoming advocates and defenders of the agency, and are in a position to make important points about context that the agency cannot.

Having constructed a clear vision for the future, NJDCF then needed a communications plan designed to support the strategic plan and to accomplish a number of important objectives:

- (1) Create key messages as a frame for understanding the larger context for agency success.
- (2) Establish that the framework is required for consistency for ALL agency communications, including proactive public relations, appropriately reactive crisis management, social media outreach, and a public health campaign approach.
- (3) Provide guidance to agency employees about the form and content of information disseminated by the agency, from press releases and publications to annual reports, quality reports, compliance reports, and legal communications such as pleadings and briefs.
- (4) Identify key audiences, their interests, and preferred methods of communication, for example: employees, families and youth, executive branch, courts, providers, advocacy groups, partner agencies, and traditional and social media (State of New Jersey Department of Children and Families, 2012).
- (5) Educate essential messengers—including all employees—about their role in supporting agency messages.
- (6) Create a platform to monitor progress, evaluate message efficacy, and provide accountability for results (State of Oklahoma Department of Human Resources staff, 2012).

Thus, Commissioner Blake understood the critical importance of aligning operations and employees, creating cross-functional systems, and bringing staff and stakeholders together to redesign service delivery so that the needs of children and families came first.

Ultimately, that success rested on effective communication. The public may be drawn to media about tragedies and attacks; readers will follow stories of tragedy, of failure, or of dire and intractable societal

ills. Observers inevitably default to what is negative, tragic, and blameful. When they are not guided toward solutions nor called to action, they are left with no alternative but assessing blame. But people also are engaged by stories of hope and redemption. Having these tools—a strategic plan and a supporting communications plan—in place allows an agency to place societal problems in a solution-focused context. The issues and work of child welfare are opaque to most people. They have neither the expertise nor the time to understand the complexities of child maltreatment, so, in the absence of context, they listen to the loudest voice. It is an agency's job to set this context simply and consistently, and to be responsible for its own narrative.

This strategic plan consistently informs the department's stakeholder communications. Like many other jurisdictions, New Jersey has implemented a qualitative review process to examine case practice in child protective services. In addition to relying on internal staff, NJDCF certified a cadre of outside stakeholders so each review is conducted by a team of one internal staff member and one stakeholder. New Jersey also relies on ChildStat as a systems diagnostic tool similar to that used by New York and Philadelphia. In New Jersey, ChildStat is a monthly meeting of leadership from across the organization at which presentations are made using data to explain case practice and diagnose systems challenges. Clinical staff from community agencies began attending these meetings in the fall of 2012 to assist the diagnostic process and move transparency efforts forward. In 2013, NJDCF joined with community leaders to select a qualitative review instrument to be used in children's behavioral health cases. Similar to the child protective services review, this will also include an internal/external team approach.

Shortly after a tragic incident occurred, the NJDCF's commissioner reached out to a small group of nonprofit CEOs, seeking their advice on a particular area of practice that the department was struggling with. Past experience told her that these agencies were doing good work with families in this area, and many of these leaders indicated their desire to provide assistance as they came to understand the full context of the work and challenges of preparing staff. This group began meeting

regularly with the commissioner and her team as a quasi-kitchen cabinet to discuss practice challenges and devise a strategy to implement and sustain long-term improvements. These meetings became a safe space for the state team to interact with other professionals and engage in honest problem solving. Ultimately, that work yielded a new approach to supervision in child welfare in New Jersey (Lee, Feldman, & Ring, 2013). By publicly joining forces in advance of tragic events, the NJDCF is not left as the only entity front and center. In the wake of some challenging media, one of the kitchen cabinet participants appeared on a news outlet to speak on behalf of the agency.

Managing Crisis Communications

Despite the best efforts of dedicated child welfare professionals, tragedies do happen—and the media, at any time, can jump on a story. Obviously, crises are much easier to manage in agencies that have prepared their stakeholders in advance with the type of proactive strategies outlined above. In any event, there are some common elements to managing communications in a crisis.

- (1) ***Have a plan:*** the essential elements of a crisis communication plan are well understood (and beyond the scope of this article)—the critical thing is to actually have one.
- (2) ***Train regularly:*** In a world in which training time is precious, this doesn't have to take a lot of time. One method is to ask employees to review the plan ahead of time, and run a role play scenario over a few hours. This not only makes it real, it is also wonderfully teambuilding and diagnostic. Inevitably, participants discover how the system breaks down when they fail to inform employees what to do with media calls.
- (3) ***Communicate with employees:*** All employees should be informed as soon as possible of anything that may show up in the media. If employees are conversant with an agency's vision and performance, they will already be able to speak on the agency's behalf. Inform them of the agency's position and provide talking points, but any effort to control employee comments will backfire.

- (4) ***Don't forget the receptionist:*** Think carefully about who will be the first line of connection with the public and the media, and do the receptionist and yourself the kindness of making sure the first line knows what to do.
- (5) ***Be prepared to be transparent:*** If you are unable to talk about a specific case due to potential or pending litigation, explain what your agency does in cases like this. Child fatalities are usually not one-size-fits all, but basic crisis communications protocols apply to nearly all child welfare tragedies (Bonk, 2003).
- (6) ***Track media coverage:*** Remember all major media outlets now operate on 24/7 internet editions with rolling deadlines. Immediately correct any misinformation, start with reporters, but move up the chain of command to editors or station managers as needed. Keep an eye on public remarks posted on media websites. Journalists frequently review public response, which can have an impact on future coverage.

Public Health Communications Can Make a Difference

The question remains: what can we learn from public health communications experiences? A number of agencies, both public and private, have engaged in social marketing efforts used by the public health community that focus on changing behavior to help prevent child fatalities and serious injury.

One such campaign, *Be Careful about Who Cares for Your Child*, was launched in New York City in response to a significant number of child fatalities in which very young children and babies were allegedly killed by their fathers or by a companion of the child's mother. The campaign consisted of radio ads, posters, and palm cards in English and Spanish. Flyers with child safety information from the campaign are also available in Arabic, Bengale, Chinese, Creole, French, Korean, Russian, Spanish, and Urdu (New York City, Administration for Children's Services, 2013).

These and other campaigns that have been conducted across the United States on SIDS (Sudden Infant Death Syndrome), Cribs for

Kids to prevent roll-over deaths, pool and swimming safety to prevent drowning, and overall preventive messages that promote child safety. But these efforts need to be more than a “one-shot” campaign. Ongoing, consistent messages are key. New York City did several campaigns that were collaborations with Administration for Children’s Services (ACS) and the Department of Health and Mental Hygiene to combine resources, expertise and outreach. These were developed “to educate all New York City parents about how to prevent injuries, accidents, and deaths among babies and young children. Information on shaken baby syndrome, the importance of choosing a caregiver carefully, and getting help for drug and alcohol abuse ran on subways, buses, billboards and in check cashing establishments citywide. In addition, radio ads on shaken baby syndrome and choosing a caregiver aired on several stations citywide (New York City Administration for Children’s Services, 2013).

In these campaigns, local media can be brought in as partners, shifting from the too often adversarial roles that emerge during a crisis. Public service directors at television and radio stations and community outreach editors at local newspapers can bring important expertise and resources to these efforts, given that public safety generally is a top concern for communities across the United States and many established mainstream media still have vestiges of public service to their community.

Invest in Strategic Communications—It Pays

Too often, if the media narrative is framed along the lines that an agency is incompetent and to blame for a child fatality, then hitting back with facts in the specific case likely will not change political or public perceptions. We now know, based on brain research, that if the frame does not fit the facts when people process information, they will generally reject these facts (Strategic Frame Analysis, 2012). If the agency frame is that of not doing a good job protecting children and keeping them in unsafe situations, then facts and figures about the virtues of child protective services will not work.

Thus, agencies need to see strategic communications as an investment to ensure that their stakeholders fully understand the mission

and values of the child welfare system, along with the cost benefits for the whole community and its children.

Shifting the narrative of media coverage from a single portrait of one child's death to a broader landscape that fits a public health frame is a challenge, but is achievable with the right communications tools. Agencies need to invest in a professional staff; development of core messages based on mission and values; training for spokespeople, a comprehensive review of past child fatalities; and a strategic communications plan based on proactive and reactive media-related activities, addressing the data about those children and families at the highest risk. This means developing and investing in a range of communications activities, both internal and external, that address a variety of services starting with prevention of what may be causing child fatalities, serious injuries, or neglect.

Agencies will need professional staff, time, money and some basic tools to set up and run a communications, public information, and media-outreach office. Often, the basics are what is most needed for positive outcomes: personal and trusted relationships with key reporters, updated websites based on values of transparency and openness while protecting the confidentiality and privacy of families, quality information about hotline calls, numbers of open cases, child fatality reviews, and other data that combines consumer information with updated facts and figures that help answer a reporter's questions.

Communications activities may be of interest to donors outside an agency's normal funding streams. Local foundations, corporations or media-related companies may have an interest in supporting public media campaigns modeled after other successful awareness efforts. For example, if there are high numbers of roll-over deaths or serious injuries, then a sleep awareness campaign focused on the dangers of adults sleeping with infants that provides cribs for new parents may attract a local donor looking for a cause or an ad agency looking for an award who would produce pro-bono spots.

Campaigns based on a public health model can shift relationships with local media from adversary to partner if proposed as a public service for a wider audience on an issue of public importance. But

these partnerships require participation by senior staff—likely the director and experienced communications professionals who can cultivate positive relationships with television station managers, news directors, publishers, and editors of local media.

Conclusion

Child welfare practice finds itself on the verge of adding another tool for promoting child safety. Public health communications campaigns on issues of car seats, childhood obesity, and side-sleeping have yielded results. While there is limited experience with and evaluations of public health campaigns by child welfare agencies based on child fatality data, anecdotal evidence and common sense support the concept that public campaigns can work similarly to increase child safety. If media can move from covering the single case of one child or one family to helping to educate the public on preventing child abuse and child deaths, it can help create a new partnership based on transparency and trust.

As child welfare has embraced new systems of family-centered practice, agencies are likewise implementing fresh philosophies of inclusion and community partnerships. Armed with information and data, practice interventions increasingly are research-based and evidence-informed. When an agency takes the next logical step of organizing and connecting these dots into a coherent narrative, it can create a context that allows the public to comprehend not only the challenges it faces, but also to appreciate its accomplishments. But without an articulated plan, neither reporters, partners, nor the public at large possess the ability to imagine the whole picture.

Following the experience of successful public health initiatives, we suggest that the investment in well-planned and executed strategic and communications plans may hold the key to bringing the safety of children in care to broader public awareness. With media participation on the front end toward averting circumstances and events that lead to child endangerment, child welfare agencies can focus on staying ahead of problems. With growing awareness of their roles, sister

agencies in medicine, mental health, law enforcement, education, the courts, the private sector, communities, and the families themselves, may assume greater roles in keeping children safe, thereby contributing to not only the continued reduction of child fatalities and injuries but to a broad-based effort to provide for the health and well-being of all children. Understanding a fuller picture, we all may be able to see tragedies for what they are—an invitation to address societal failure to provide for the needs of our most vulnerable children.

References

- American Public Human Services Association. (2009). Positioning public child welfare guidance: Communications guidance. Retrieved from <http://www.ppcwg.org/>.
- Bonk, K., Tynes, E., Griggs, H., & Sparks, P. (2008). *Strategic communications for nonprofits*. Chapter 8: "Responding to a Media Crisis and Managing Backlash."
- Bonk, K. (2003). Managing media in a crisis. *Policy and Practice*, 61(2). Washington, DC: American Public Health and Services Association.
- California Assembly Judiciary Committee, Staff. (2011). Options for improving outcomes for foster youth by increasing the effectiveness of dependency hearings.
- Carre Lee, N., Feldman, L., & Ring, R. (April, 2013). Focus on supervision: "Improving supervisory case conferences in collaboration with community agencies." Presented at the 2013 CWLA National Conference, *Making Children and Families a Priority: Raising the Bar*.
- Charlie and Nadine H. v. Christie*. Civil Action No. 99-3678 (GEB). (2003). Retrieved from <http://www.childrensrights.org/reform-campaigns/legal-cases/new-jersey/>.
- Dwyer, J. (2011). No place for children: Addressing urban blight and its impact on children through child protection law, domestic relations law, and "adult only" residential zoning. *Alabama Law Review*, 62(5).
- Edwards, L. (2004). Confidentiality and the juvenile and family courts. *Juvenile and Family Court Journal*.

- Hauck, FR, Tanabe KO. (2008). International trends in sudden infant death syndrome: Stabilization of rates and further action. *Pediatrics*.
- Heimpel. (2010). Responsibility lost. *The Huffington Post*.
- Heimpel. (2012). A time for trust. *The Chronicle of Social Change*.
- Kapalko, J. (2012). A watched system: Should journalists be granted access to juvenile dependency hearings? *Fostering Media Connections*.
- Kennedy, J. (2008). This may be the last DHR article I write. *The Birmingham News*.
- Lake, Celinda, (2010-11) Presentation to the Georgetown University Public Information Officers Learning Collaborative and based on a series of polling and focus groups done on child welfare including Lake Research, Pew Foster Group Transcripts by Hart Research, Casey Family Programs, ABC News and others.
- Nash, M. (2012). Blanket Order Re: WIC 346 and Public and Media Attendance at Dependency Court Hearing. Superior Court of California, County of Los Angeles.
- New York City, Administration for Children's Services, 2013. Retrieved from http://www.nyc.gov/html/acs/html/child_safety/care_giver_campaign.shtml.
- Newton, J. (2012). Does secrecy serve the children? *The Los Angeles Times*.
- NJ DCF. (2012). Keeping your DYFS case open until 21 in New Jersey: The experiences of young people like you. Retrieved from www.state.nj.us/dcf/adolescents.
- CAPTA Reauthorization Act. (2010). Pub. L. No. 111-320.
- Resolution No. 9. (2005). Resolution in support of presumptively open hearings with discretion of courts to close. National Council on Juvenile and Family Court Judges.
- State of Oklahoma Department of Human Services, Staff. (2012). The Oklahoma Pinnacle Plan. Retrieved from http://www.okdhs.org/NR/rdonlyres/3AD0282C-FB6E-44B8-A714-F2CAB72D8500/0/OklahomaPinnaclePlanFinal_cfsd_07252012.pdf.
- Strategic Frame Analysis. (2012). Retrieved from <http://www.FrameworksInstitute.org>
- Traid Research, (1995-96) Report to the Public Children's Service Association of Ohio that included 75 focus groups in 14 states.

United States Department of Health and Human Services. (September 2012). Child Welfare Policy Manual. Retrieved from http://www.acf.hhs.gov/cwpm/programs/cb/laws_policies/laws/cwpm/.

Wakefield, M., Loken, B., & Hornik, R. (2010). Use of mass media campaigns to change health behaviour. *The Lancet*, 376(9748), 1261-1271

Summary Article

The Road Ahead: Comprehensive and Innovative Approaches for Improving Safety and Preventing Child Maltreatment Fatalities

Zeinab Chahine
Casey Family Programs

David Sanders
Casey Family Programs

This article presents a high-level overview of the complex issues, opportunities, and challenges involved in improving child safety and preventing child maltreatment fatalities. It emphasizes that improving measurement and classification is critical to understanding and preventing child maltreatment fatalities. It also stresses the need to reframe child maltreatment interventions from a public health perspective. The article draws on the lessons learned from state-of-the-art safety engineering innovations, research, and other expert recommendations presented in this special issue that can inform future policy and practice direction in this important area.

Child Protection Service (CPS) agencies receive an estimated 3.3 to 3.4 million child abuse and neglect referrals, involving approximately 6.2 million children, each year (U.S. Department of Health and Human Services [DHHS], 2009, 2010, 2011). Recent research by the National Center for Injury Prevention and Control at the Centers for Disease Control and Prevention (CDC) has estimated the total lifetime financial costs associated with just one year of confirmed cases of child maltreatment at \$124 billion, comparable to the societal costs of other major public health problems such as Type 2 diabetes (Fang, Florence, & Mercy, 2012).

The National Data Archive on Child Abuse and Neglect (NCANDS) estimated that 1,560 children died from abuse and neglect in fiscal year 2010 compared with 1,750 for fiscal year 2009 (DHHS, 2011). The 4th National Incidence Study (NIS-4), using a different methodology of nationally representative samplings from 122 counties and multiple sources of information, estimated 2,400 child deaths from maltreatment (Sedlak et al., 2010). A Government Accountability Office (GAO) report in 2011 concluded that more children have likely died from maltreatment than are counted in NCANDS. These conflicting figures are understandable as states face multiple difficulties when it comes to determining whether a child's death is caused by maltreatment as well as collecting and reporting consistent data (GAO, 2011). However, many researchers and practitioners agree that child fatalities due to abuse and neglect are underreported. Therefore, the true prevalence of fatal maltreatment is unknown (Schnitzer, Covington, Wirtz, Verhoek-Oftedahl, & Palusci, 2008; GAO, 2011).

In an effort to influence and mobilize national efforts to improve safety and prevent child maltreatment-related fatalities, Casey Family Programs, a national foundation dedicated to improving child welfare outcomes in this country through its 2020 strategy, launched a series of forums in the fall of 2011. The Administration on Children, Youth and Families (ACYF) and the National Center for Injury Prevention and Control at the CDC joined Casey in hosting these events, which were attended by experts, policymakers, advocates,

researchers, practitioners, and child welfare leaders as well as public health experts. These forums provided an opportunity to explore the issue of child fatalities from different perspectives.

The articles in this special issue journal are based on presentations and lessons learned from these forums. Drawing on those forums as well as other articles in this special issue, this article presents a summary of the issues so as to inform future policy and practice innovations in this important area, including reframing child maltreatment fatalities from a public health perspective.

Comprehensive Measurement and Classification of Child Fatalities

Identifying and investigating child maltreatment fatalities presents serious challenges that together lead to the well-documented undercounting of child abuse and neglect-related deaths (GAO, 2011). Improving measurement and classification is critical to understanding and preventing child maltreatment fatalities. Consistency in identifying and counting child maltreatment fatalities at the state, local, and national level is also essential in determining whether efforts to reduce and prevent maltreatment fatalities are effective. Determination that a child's death is maltreatment-related involves professionals in multiple disciplines—medicine, law enforcement, child welfare, and the judicial system—who use different legal and regulatory standards. Therefore, population-based or public health maltreatment surveillance at the state and national levels can be used to improve measurements of fatal child maltreatment and as a mechanism for analyzing relevant risk factors, with the goal of developing prevention strategies.

To accomplish this, a public health-focused definition of child maltreatment and clear guidelines for operationalizing these definitions, especially in the case of neglect, are necessary (Schnitzer, Gulino, & Yaun, 2013). A first step in a public health approach is surveillance, which is defining and monitoring the problem (Butchart, Phinney, Check & Villaveces, 2004; Mercy et al., 1993; Covington,

2013; Richmond-Crum, Joyner, Fogerty, Ellis, & Saul, 2013). Surveillance from a public health framework can help to determine prevalence and risk, as well as support effective planning, implementation, and evaluation of public health programs (CDC, 2001).

Several authors have made recommendations regarding how to improve surveillance of child maltreatment deaths (Putnam-Hornstein et al., 2013; Rivara & Johnston, 2013; Schnitzer, Gulino, & Yaun, 2013). Putnam-Hornstein and colleagues advance that the integration of administrative data across multiple systems can improve surveillance of nonfatal and fatal maltreatment (Putnam-Hornstein et al., 2013). Schnitzer and colleagues recommended several actions to improve surveillance of child maltreatment fatalities, including: (1) developing an operational definition of neglect-related deaths that is not specific to a particular agency; (2) strengthening the role and capacity of state and local child death review teams to serve as multi-agency, multi-disciplinary forums for reviewing child deaths and identifying, classifying, and reporting fatal child maltreatment; (3) developing guidelines for standardizing state reporting to NCANDS to better identify and report fatal maltreatment across states and jurisdictions; and (4) creating a model for transition from coroner systems to medical examiner systems. The authors emphasize the importance of developing a similar process for public health surveillance for severe injuries and “near fatalities” in order to develop preventive strategies (Schnitzer, Gulino, & Yaun, 2013).

Using Risk Factors for Severe Maltreatment and Fatalities to Improve Prevention

The second step in the public health model is identifying risk and protective factors (Butchart, Phinney, Check & Villaveces, 2004; Mercy et al., 1993; Covington, 2013; Richmond-Crum, Joyner, Fogerty, Ellis, & Saul, 2013). Information about these factors is combined with surveillance data to plan prevention strategies. Extensive research exists on the characteristics of families whose children are at risk of maltreatment. Risk factors for child maltreatment include

substance abuse, domestic violence, poverty, and homelessness among other stressors (Berger, 2005; Edleson, 1999; Mills et al., 2000; Sheldon-Sherman, Wilson, & Smith, 2013; Substance Abuse and Mental Health Services Administration, 1999). Research has also found that children residing with unrelated caregivers, particularly males, are at higher risk of maltreatment death than children who live in a home with two biological parents (Schnitzer & Ewigman, 2008; Stiffman, Schnitzer, Adam, Kruse, & Ewigman, 2002).

Differences in prevalence of child maltreatment deaths based on age, race/ethnicity, and gender also exist. Younger children account for the majority of youth who die or are seriously injured due to maltreatment (Hochstadt, 2006). In 2011, more than four-fifths (82%) of children who died from maltreatment were under the age of 4 years; 42% were younger than 12 months (DHHS, 2011). There is also a racial difference in fatalities; for example, African American children are at heightened risk for injury and death from abuse and neglect (Hochstadt, 2006). In addition, studies have found that boys are slightly more likely than girls to die from maltreatment-related incidents (Stiffman et al., 2002).

As demonstrated by the research, many high-risk family situations can be identified very early in the life of a child, providing opportunity for proactive support and intervention that can help save children's lives and prevent serious injuries. Information available from birth records regarding a small set of risk factors can help target high-risk children and families for outreach and offers of voluntary services (Putnam-Hornstein et al., 2013). For example, a large-sample study in California linking birth records and CPS records found that a report for child maltreatment before the age of 5 years, whether substantiated or not, is a major risk factor for fatality from intentional or unintentional injury (Putnam-Hornstein, 2011; Putnam-Hornstein, Webster, Needelll, & Magruder, 2011). Similarly, other research has identified risk factors that are predictive of severe child maltreatment and fatalities. For example, rates of abusive head trauma (AHT) identified among children younger than 5 increased significantly at several major pediatric hospitals between

2007 and 2009 and were associated with increased economic hardship at the community level (Berger et al., 2011; Wood et al., 2012).

There is also opportunity to apply predictive analytics to improve early intervention and prevention of child maltreatment. New Zealand is exploring the adoption of a computerized tool for identifying children with heightened risk of future maltreatment (Vaithianathan et al., 2012, cited in Putnam-Hornstein et al., 2013). In this tool, public assistance and child maltreatment data would be integrated, allowing the use of more than 200 data elements concerning children, siblings, and adults to generate a risk score capturing a child's probability of being substantiated for maltreatment (Putnam-Hornstein et al., 2013).

Reframing Child Maltreatment as a Public Health Issue

A significant proportion of child maltreatment-related deaths occur in families who have no history of involvement with the child welfare system. According to information from at least 36 states during a three-year period, only slightly more than one-third of the children who died due to abuse and neglect had prior or current contact with CPS agencies (Peddle, Wang, Diaz, & Reid, 2002). Given the high prevalence of child maltreatment death among younger children who may not be known to the child welfare system, it is essential to address this problem from a broader public health perspective, not just through the lens of child welfare.

While most child protection activities in the United States have traditionally relied on tertiary prevention, the value of a broader public health approach is that it focuses energy and resources on more "upstream" primary and secondary prevention activities, and thus it has the potential to keep more children safe while reducing and preventing the trauma and disruption associated with removing children from their homes (Chahine, 2010). A public health approach to maltreatment places primary and early intervention at the center of public policy, and such an approach can more readily impact larger segments of the at-risk population than child welfare systems. Public

health efforts reach beyond the individual level and target decreasing rates of child maltreatment at the population level (Cohen & Swift, 1995; Frieden, 2010; Covington, 2013).

Reframing child fatalities and maltreatment as a public health issue requires focused efforts from the public health system and strong collaboration with the child welfare system and the community at large. Public health leaders were invited to attend the Casey Family Programs' safety forums along with their counterparts from public child welfare agencies in several states. It is interesting to note that the majority of states in attendance had not had ongoing collaboration between the two departments. Richmond-Crum and colleagues highlighted how North Carolina leaders from early childhood education, public health, mental health, education, child welfare, universities, and civic leadership have collaborated to develop a common vision of child maltreatment prevention and have moved from a *child welfare* frame of child maltreatment prevention/ early intervention to a *public health* frame, one that focuses investments upstream (Richmond-Crum, Joyner, Fogerty, Ellis & Saul, 2013).

Reframing child maltreatment fatalities from a public health perspective has the potential to be more effective than current strategies. Public health research has demonstrated that certain types of interventions can help reduce and prevent child fatalities and serious injuries in other safety areas. Automobile child safety seats, bicycle helmets, and safety fences around swimming pools are examples of simple and effective steps that have saved many lives. The promotion of safe sleeping practices ("Back to Sleep") is another example of an initiative that has reduced preventable child deaths and injuries and that could likely save additional lives if consistently promoted by organizations that come into contact with families with infants and toddlers. Public information campaigns are integral to effective public health efforts to reduce and prevent deaths and injuries. They also play a critical role in framing child safety as a community responsibility (Rivara & Johnston, 2013).

In addition to efforts focused at the population level, cooperation between multiple systems to implement community-level early

intervention and prevention efforts are necessary to address maltreatment. The evidence is building regarding effective early prevention and intervention programs designed to reduce maltreatment. Some prevention, early intervention, and parenting programs are evidence-informed or evidence-based. Models that have been evaluated include the Nurse-Family Partnership (NFP), Healthy Families America, Parents as Teachers, Parent-Child Home Program, Home Instruction for Parents of Preschool Youngsters (HIPPY), and Early Head Start (Daro, 2006). Evidence-based and evidence-informed parenting training programs such as Triple P (Positive Parenting Program), a multi-level system of parenting education and training, are being used with increasing frequency (Chahine, 2010; Richmond-Crum, Joyner, Fogerty, Ellis, & Saul, 2013).

A Systems Approach for Improving Safety and Preventing Fatalities

Although a significant proportion of child maltreatment-related deaths occur in families who have no history of involvement with child protection, one-third of the families with child deaths resulting from maltreatment have had prior contact with CPS agencies. CPS professionals are responsible for assessing and making critical decisions concerning the safety and risk of millions of children each year. The quality of child protection work depends on the capacity of frontline staff to make these very important decisions as well as a host of organizational factors including training, workload, assessment tools, supervision, and resources (Cull, Rzepnicki, O'Day, & Epstein, 2013).

CPS systems have increasingly adopted assessment tools to improve safety and risk decision-making in child protection cases. However, current approaches have not been tested for their ability to predict or prevent severe child maltreatment or maltreatment-related child deaths. Having reliable, valid, and equitable assessments is essential but not a substitute for competent professional judgment. Given the complexity of child protection work and its ambiguity and complexity, there are limits to the ability of CPS staff, no matter how

competent, to predict the likelihood that children will be seriously harmed. At best, decisions about safety and risk are subject to both false negative and false positive errors. Supporting a family to safely remain together or deciding to remove a child from a dangerous home is a critical decision subject to these types of errors, and they can potentially have life and death consequences (Pecora, Chahine, & Graham, 2013).

The challenges and complexities involved in child protection work are compounded by the media and public reaction to deaths or serious injuries of children who had prior contact with the CPS system occur. The search for someone to blame leads to greater defensiveness in an already anxious workforce (Turnell, Munro, & Murphy, 2013). As a result of negative media coverage of these fatalities and the resulting public outrage, caseworkers, supervisors, and agency heads may also be fired (Geen & Tumlin, 1999). A culture of defensiveness may develop in response to these social, political, and media pressures.

Examination of critical incidents need to go beyond determining individual human errors to include organizational processes so as to identify flaws in system functioning that also contribute to error (Cull, Rzepnicki, O'Day & Epstein, 2013; Turnell, Munro & Murphy, 2013). Turnell and colleagues argued that when flaws in practice by individuals are identified, these flaws deserve close scrutiny. However, they added, critical incidents are rarely the result of malice or incompetence; rather they result from the interplay of a complex set of factors (Turnell, Munro & Murphy, 2013). Following a review of England's child protection system, Munro (2010) recommended applying a systems perspective to analyzing critical incidents in child protection. She urged leaders in the field to be cognizant of the fact that errors in child protection are inevitable and that agencies need to steadily work at minimizing errors and creating an organizational environment in which ongoing learning about how to improve practice can occur. She cautioned policymakers that the increased reliance on procedures and paper work requirements as mechanisms for ensuring accountability tend to have the unintended effect of increasing errors by reducing

opportunities for professional judgment and time available to spend with families and children (Munro, 2010).

Child protection needs to draw on analytic processes used in other fields concerned with public safety. Rzepnicki and Johnson (2005) described the adoption and implementation of *root cause analysis*, the application of a structured investigative and analytic process originally designed to achieve in-depth understanding of adverse outcomes in other high-risk enterprises (e.g., chemical factory explosions, airline crashes, failed military operations) to child protection in Illinois. In addition, Cull and colleagues as well as Rzepnicki and colleagues discussed the potential application of *high reliability organizing* (HRO) principles in the child protection service agency. HRO organizations have systems in place that are exceptionally consistent in accomplishing their goals and avoiding potentially catastrophic errors. The principles of HRO were first embraced by industries in which past failures had led to catastrophic consequences: airplane crashes, nuclear reactor meltdowns, and other such disasters. These industries found it essential to identify weak danger signals and to respond to these signals strongly so that system functioning could be maintained and disasters avoided (Cull et al., 2013, Rzepnicki et al., 2013; Rzepnicki et al., 2010).

Influencing the public's view of child welfare in this country is critical in order to maximize the capacity for learning from error in order to develop effective strategies to prevent maltreatment deaths. Generally media reports of tragic child deaths and serious injuries reinforce an image of child protection as a "failed system" that does not deserve additional public investment, and it leaves CPS professionals as well as agency leaders in a vulnerable and defensive posture (Blake, Bonk, Heimpel, & Wright, 2013). Turnell and colleagues provided an excellent example of how critical incidents in child protection can be handled effectively in order to avoid "knee-jerk" reactions that tend to overlay CPS systems with procedural requirements and engender anxiety in the workforce. They identified four leadership principles when managing a critical incident: (1) avoiding hindsight error and being rushed into

blaming someone, (2) managing political and public reactions, (3) supporting the families, and (4) supporting staff and developing expertise (Turnell, Murphy, & Munro 2013).

The public attitude toward CPS is complicated by the current confidentiality practices in child welfare in addition to the lack of comprehensive and responsible media coverage. Blake and colleagues recommended the continued revision of confidentiality laws and practice, a higher standard of journalism in covering child deaths, as well as proactive and transparent internal and external communication strategies to engage staff, the media, and the public before critical incidents occur. Drawing lessons from successful public health campaigns, the authors also recommended engaging the media and the public in creating broader public awareness about the role social institutions can play in keeping children safe (Blake, Bonk, Heimpel, & Wright, 2013).

Comprehensive Cross-Systems and Community Approaches

Finally, consistent with a public health model, preventing child maltreatment injuries and deaths requires ongoing collaboration among federal, state, and local authorities as well as a range of agencies across service sectors and the community. This cannot be accomplished by public child welfare agencies alone. Di Lorenzo and colleagues presented examples from around the country of how cross-systems and community partnerships can improve child safety and prevent maltreatment (Di Lorenzo et al., 2013).

Federal, state, and local partnerships are necessary to promote the safety and the social and emotional well-being of vulnerable children. A necessary policy direction for improving child safety and reducing child maltreatment fatalities is to support, fund, and highlight best practices for which cross-systems collaboration and coordination are the focus. Community-based networks that support prevention create the context in which families can successfully care for their children. It is important to note that the Children's Bureau has outlined

a vision of child welfare that emphasized a comprehensive evidence-based and evidence-informed community-based service array that could be available to families through their local child welfare agencies and other key public and private partners (Mitchell et al., 2012).

Conclusion

Child maltreatment is a public health problem that can only be effectively addressed through a public health approach. The responsibility for protecting children should not be viewed as the sole responsibility of child welfare agencies. These agencies serve critical roles as the last line of defense for vulnerable children. These systems should adopt innovations used by other fields: health, public health, and other industries concerned with public safety.

The media, the public, and policymakers have an important role to play in helping to move away from the current preoccupation with assigning blame to learning from tragedies so they can be prevented. As new research emerges, understanding innovative practices available to address the impact of maltreatment on children, youth, and families will require that systems work differently. It is imperative that the field begin to apply the research findings discussed in this special issue. There are both policy and practice implications that need to be seriously considered and applied. Innovative models that involve cross-systems predictive analytics can help to determine potential risk factors and improve early detection, early intervention, and prevention efforts.

It is encouraging that there is growing interest at the federal level in more effectively addressing fatal maltreatment. In 2011, the GAO issued a report titled "Strengthening National Data on Child Fatalities Could Aid in Prevention Report." In 2012, the U.S. House Committee on Ways and Means, Subcommittee on Human Resources held a hearing to explore ways to reduce child deaths due to maltreatment. On January 14, 2013, President Barack Obama signed into law the Protect Our Kids Act of 2012, which establishes a commission to develop a national strategy and recommendations

for reducing fatalities resulting from child abuse and neglect. The commission will study data on such child fatalities, review current prevention methods and best practices, and evaluate the adequacy of current programs in order to recommend a comprehensive strategy for reducing maltreatment-related fatalities (Protect Our Kids Act, 2012).

Child maltreatment in general and child maltreatment-related deaths are tragedies that deserve comprehensive strategies and collective efforts at the national, state, and local levels. Aligning state, county, and local resources to streamline the delivery of services and improve outcomes is essential. A strong network of community institutions creates the context and foundation for cross-systems collaborations that are more likely to achieve sustainable change. However, we cannot adequately address the issue of child fatalities until we know the full scope of the problem, i.e., not until there are accurate data. A comprehensive surveillance system is necessary to improve classification and measurement of child maltreatment-related fatalities. Moving toward a public health model of classifying child maltreatment is a huge undertaking that requires commitment of policymakers at all levels of government and numerous community stakeholders.

References

- Bennett, M. D., Jr., Hall, J., Frazier, L., Jr., Patel, N., Barker, L., & Shaw, K. (2006). Homicide of children aged 0-4 years, 2003-04: Results from the National Violent Death Reporting System. *Injury Prevention, 12 Suppl(2)*, ii39-ii43.
- Berger, L. M. (2005). Income, family characteristics, and physical violence toward children. *Child Abuse & Neglect, 29(2)*, 107-133.
- Berger, R. P., Fromkin, J. B., Stutz, H., Makoroff, K., Scribano, P.V., Feldman, K. & Fabio, A. (2011). Abusive head trauma during a time of increased unemployment: A multicenter analysis. *Pediatrics, 128(4)*, 637-643.

- Blake, A., Bonk, K., Heimpel, D., & Wright, C. S. (2013). Effective Communications Strategies: Engaging the Media, Policymakers and the Public. *Child Welfare*, 92(2).
- Butchart A, Phinney A, Check P, & Villaveces A. *Preventing violence: a guide to implementing the recommendations of the World report on violence and health*. Department of Injuries and Violence Prevention, World Health Organization, Geneva, 2004.
- Casey Family Programs. Testimony of David Sanders, Ph.D., Executive Vice President of Systems Improvement. US House Committee on Ways and Means, Subcommittee on Human Resources. Hearing on Proposal to Reduce Child Deaths Due to Maltreatment. Washington, DC, December 12, 2012.
- Chahine, Z. (2010). *Foster care reduction trends and safety outcomes*. (Doctoral dissertation proposal, City University of New York).
- Centers for Disease Control and Prevention. (2001). *Updated guidelines for evaluating public health surveillance systems: Recommendations from the guidelines working group*. MMWR; 50 (No. RR-13): 1-35.
- Cohen, L., & Swift, S. (1995). The spectrum of prevention: Developing a comprehensive approach to injury prevention. *Injury Prevention*, 5, 203-207.
- Covington, T. M. (2013). The Public Health Approach for Understanding and Preventing Child Maltreatment: A brief review of the literature and a call to action. *Child Welfare*, 92(2), 19-38.
- Covington, T. M. (2011). The US National Child Death review case reporting system. *Injury Prevention*, 17 Suppl (1), i34-i37.
- Cull, M., Rzepnicki, T.L., O'Day, K., & Epstein, R. (2013). Applying a Public Health Approach: The Role of the State Health Department in Preventing Severe Maltreatment and Fatalities of Young Children. *Child Welfare*, 92(2), 177-193.
- Daro, D. (2006). Home visitation: Assessing progress, managing expectations. Chicago, IL: Ounce of Prevention Fund and Chapin Hall at the University of Chicago. Retrieved from http://www.ounceofprevention.org/includes/tiny_mce/plugins/filemanager/files/Home%20Visitation.pdf.
- Di Lorenzo, P. Roller White, C., Morales, A., Paul, A., & Shaw, S. (2013). Innovative Cross-System and Community Approaches for the Prevention of Child Maltreatment. *Child Welfare*, 92(2), 159-176.

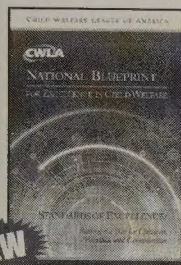
- Edleson, J. L. (1999). The overlap between child maltreatment and woman battering. *Violence against Women*, 5(2), 134-154.
- Fang, X., Florence, C., & Mercy, J. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse and Neglect*, 36, 156-165.
- Frieden, T. R. (2010). A framework for public health action: The impact health pyramid. *The American Journal of Public Health*, 100(4), 590-595.
- Geen, R., & Tumlin, K. (1999). *State efforts to remake child welfare: Responses to new challenges and increased scrutiny* (Occasional Paper #29). Washington, DC: The Urban Institute. Retrieved from <http://www.urban.org/url.cfm?ID=309196>
- Hochstadt, N. J. (2006). Child death review teams: A vital component of child protection. *Child Welfare-New York*, 85(4), 653.
- Mercy, J. A., Rosenberg, M. L., Powell, K. E., Broome, C. V., & Roper, W. L. (1993). Public health policy for preventing violence, *Health Affairs*, 12, 7-29.
- Mills, L. G., Friend, C., Conroy, K., Fleck-Henderson, A., Krug, S., Magen, R. H.... Trudeau, J. H. (2000). Child protection and domestic violence: Training, practice, and policy issues. *Children and Youth Services Review*, 22(5), 315-332.
- Mitchell, L., Walters, R., Thomas, M. L., Denniston, J., McIntosh, H., & Brodowski, M. (2012). The Children's Bureau's vision for the future of child welfare. *Journal of Public Child Welfare*, 6(4), 550-567. Retrieved from <http://dx.doi.org/10.1080/15548732.2012.715267>.
- Munro, E. (2010). The Munro review of child protection. Part One: A systems analysis. Retrieved from <http://learning-concepts.org/research/munroreview.pdf>.
- Pecora, P. J., Chahine, Z., Graham, C. J. (2013). Safety and Risk Assessment Frameworks: Overview and Implications for Severe Child Maltreatment Injuries and Fatalities. *Child Welfare*, 92(2), 141-158.
- Peddle, N., Wang, C. T., Díaz, J., & Reid, R. (2002). Current trends in child abuse prevention and fatalities: The 50-state survey. Chicago: Prevent Child Abuse America.
- Protect our Kids Act, 2012*. Retrieved from <http://beta.congress.gov/bill/112th-congress/house-bill/6655/text>.

- Putnam-Hornstein, E. (2011). Report of maltreatment as a risk factor for injury death: A prospective birth cohort study. *Child Maltreatment*, 16(3), 163-174.
- Putnam-Hornstein, E., Wood, J., Fluke, J., Yoshioka-Maxwell, A. & Berger, R. P. (2013). Risk Factors for Severe and Fatal Child Maltreatment. *Child Welfare*, 92(2), 57-74.
- Putnam-Hornstein, E., Webster, D., Needell, B., & Magruder, J. (2011). A public health approach to child maltreatment surveillance: Evidence from a data linkage project in the United States. *Child Abuse Review*, 20, 256-273.
- Richmond-Crum, M., Joyner, C., Fogerty, S., Ellis, M. L., Saul, J. (2013). Applying a Public Health Approach: The Role of the State Health Department in Preventing Severe Maltreatment and Fatalities of Young Children. *Child Welfare*, 92(2), 97-116.
- Rivara, F. P., Johnston, B. (2013). Effective Primary Prevention Programs in Public Health and Their Applicability to the Prevention of Child Maltreatment. *Child Welfare*, 92(2), 117-138
- Rzepnicki, T. L. & Johnson, P.R. 2005. Examining decision errors in child protection cases: A new application of root cause analysis. *Children and Youth Services Review* 27: 393-407.
- Rzepnicki, T. L., Johnson, P. R., Kane, D., Moncher, D., Coconato, L., & Shulman, B. (2010). Transforming child protection agencies into high reliability organizations: A conceptual framework. *Protecting Children*, 25(1), 48-62.
- Schnitzer, P., Covington, T. M., Wirtz, S. J., Verhoek-Oftedahl, W., & Palusci, V. J. (2008). Public health surveillance of fatal child maltreatment: Analysis of 3 state programs. *American Journal of Public Health*, 98, 296-303.
- Schnitzer, P. G., & Ewigman, B. G. (2008). Household composition and fatal unintentional injuries related to child maltreatment. *Journal of Nursing Scholarship*, 40(1), 91-97.
- Schnitzer, P., Gulino, S., & Yuan, Y. Y. (2013). Advancing Public Health Surveillance to Estimate Child Maltreatment Fatalities: Review and Recommendations. *Child Welfare*, 92(2), 75-96.
- Sedlak, A. J., Mettenburg, J., Basena, M., Petta, I., McPherson, K., & Greene, A. (2010). *Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families. Retrieved from http://www.acf.hhs.gov/programs/opre/abuse_neglect/natl_incid/nis4_report_congress_full_pdf_jan2010.pdf

- Sheldon-Sherman, J. Wilson, D. & Smith, S. (2013). Extent and Nature of Child Maltreatment Related Fatalities: Implications for Policy and Practice. *Child Welfare*, 92(2), 39–56.
- Stiffman, M. N., Schnitzer, P. G., Adam, P., Kruse, R. L., & Ewigman, B. G. (2002). Household composition and risk of fatal child maltreatment. *Pediatrics*, 109(4), 615–621.
- Substance Abuse and Mental Health Services Administration (SAMHSA) & U.S. Department of Health and Human Services. (1999). Blending perspectives and building common ground: A report to congress on substance abuse and child protection. Retrieved from <http://aspe.hhs.gov/hsp/subabuse99/subabuse.htm>.
- Turnell, A, Murphy, T., & Munro, E. (2013). Soft Is Hardest: Leading for Learning in Child Protection Services Following a Child Fatality. *Child Welfare*, 92(2), 197–214.
- U.S. Department of Health and Human Services, Administration for Children and Families. (2009). *Child maltreatment 2009*. Washington, DC: Children's Bureau. Retrieved from <http://www.acf.hhs.gov/programs/cb/pubs/cm07/cm07.pdf>.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families. (2011) *Child maltreatment, Children's Bureau*. Retrieved from <http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/child-maltreatment>.
- U.S. Department of Health and Human Services, Administration for Children and Families, Children's Bureau (2010). *Child maltreatment*. Washington, DC. Retrieved from <http://www.acf.hhs.gov/programs/cb/pubs/cm10/>.
- U.S. Government Accountability Office. (2011). *Child maltreatment: Strengthening national data on child fatalities could aid in prevention*. Report to the Chairman, Committee on Ways and Means, House of Representatives. Washington, DC: Author.
- Vaithianathan, R., Maloney, T., Putnam-Hornstein, E., Jiang, N., DeHaan, I., Dale, C., & Dare, T. (2012). Vulnerable children: Can administrative data be used to identify children at risk of adverse outcomes? *The Centre for Applied Research in Economics, Department of Economics, University of Auckland*.
- Wood, J. N., Medina, S. P., Feudtner, C., Luan, X., Localio, R., Fieldston, E. S., & Rubin, D. M. (2012). Local macroeconomic trends and hospital admissions for child abuse, 2000–2009. *Pediatrics*, 130, e358–e364.

CHILD WELFARE LEAGUE OF AMERICA BookBin

To order call 800-407-6273 or browse www.cwla.org/pubs. CWLA full members receive a 20% discount.

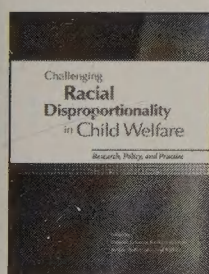


CWLA National Blueprint for Excellence in Child Welfare

Item: 152 • Paperback: \$24.95
CWLA members pay: \$19.96

The CWLA *National Blueprint* states that it will take the combined knowledge, skills, and resources of all systems, services, communities,

and individuals to ensure that all children will grow up safely, in loving families and supportive communities, with everything they need to flourish—and with connections to their culture, ethnicity, race and language. The CWLA *National Blueprint* serves as the foundation for our *Standards of Excellence* and a framework for all children, youth and families to flourish. Although the formal child welfare system has a specific role to play for children who have been or are at risk of abuse and neglect, responsibility for the well-being of children and youth extends well beyond traditional child welfare. By aspiring to the standards detailed in the CWLA *National Blueprint*, families, individuals, communities, providers, and other organizations can create the greatest opportunities for all children and youth to succeed and flourish. It is only by achieving a vision for all children and youth that the most vulnerable among them can flourish.



Challenging Racial Disproportionality in Child Welfare: Research, Policy, and Practice

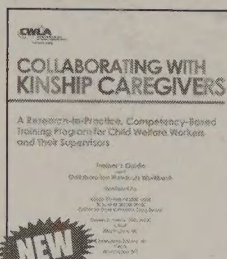
Edited by Deborah K. Green, Kathleen Belanger, Ruth G. McRoy, and Lloyd Bullard

Item: 1446 • Paperback: \$69.95
CWLA members pay: \$55.96

This textbook seeks to answer disproportionality questions. Chapters discuss racial disproportionality and outcome disparity, what happens to children who face these obstacles, and how child welfare can partner with other systems to build organizational and community-based supports to address disproportionality and reduce disparity.

"This book provides more than a challenge to racial disproportionality issues in child welfare. It is a frontal attack on addressing a longstanding issue and its corrosive impact on the life changes of families, children, and communities."

- Dr. Sadye Logan, Professor and Director of the Newman Institute for Peace and Social Justice, College of Social Work, University of South Carolina

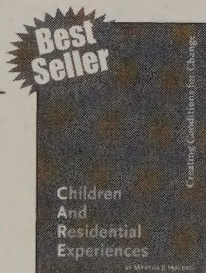


Collaborating with Kinship Caregivers: A research to practice competency-based training program for child welfare workers and their supervisors

By Eileen Mayers Pasztor, DSW, Donna D. Petras, PhD, MSW, Cassandra Rainey, JD

Item: 1279 • Module: \$225.00
CWLA members pay: \$180.00

More than 20 years ago, CWLA advanced the term "kinship care" and called for specific policy, program, and practice innovations to address the special needs of increasing numbers of relatives—especially grandparents—raising their younger family members. This new, 12-hour curriculum, approved by CWLA's National Kinship Care Advisory Committee, presents a "Collaboration Model of Practice" to teach professionals how to facilitate collaboration with kinship caregivers to enhance child safety, well-being, and permanency outcomes for children in their care. This is part of CWLA's Kinship Care Model of Practice program to help ensure that agencies and organizations have a standardized approach to best policies and practices.



Children and Residential Experiences: Creating Conditions for Change

By Martha Holden

Item: 1262 • Paperback: \$19.95
CWLA members pay: \$15.96

The CARE practice model provides a framework for residential care based on a valid theory of how children change

and develop, motivating both children and staff to adhere to routines, structures, and processes, minimizing the potential for interpersonal conflict. The core principles of the model have a strong research and/or theoretical relationship to positive child outcomes, and can be incorporated into a wide variety of programs and treatment models.

OTHER POPULAR TITLES

What Works in Child Welfare (Revised), Edited by Patrick A. Curtis & Gina Alexander, Item: 1507, Paperback: \$39.95, CWLA members pay: \$31.96

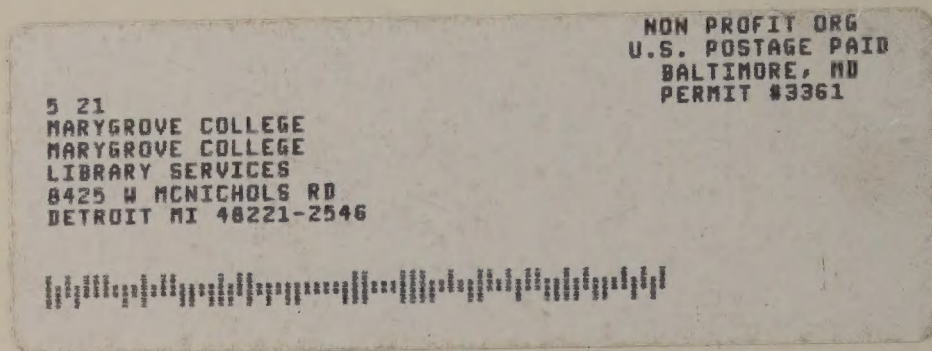
Attachment, Trauma & Healing, By Terry Levy and Michael Orlans, Item: 7091, Paperback: \$34.95, CWLA members pay: \$27.96

Working With Traumatized Children (Revised), By Kathryn Brohl, Item: 0975, Paperback: \$19.95, CWLA members pay: \$15.96

Order 24 hours a day, 7 days a week at www.cwla.org/pubs.



1726 M Street NW, Suite 500, Washington, DC 20036



New From
CWLA Press

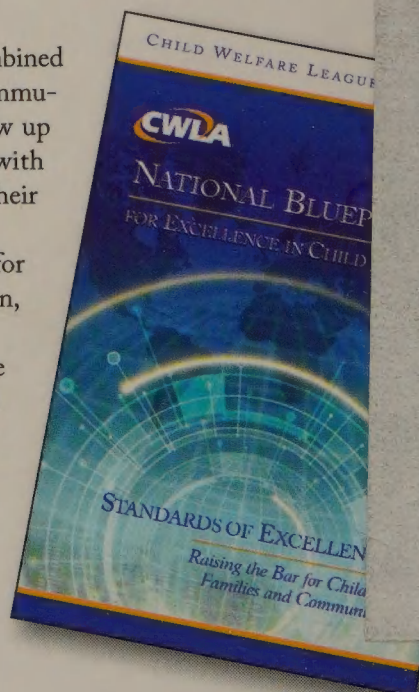


NATIONAL BLUEPRINT FOR EXCELLENCE IN CHILD WELFARE

The CWLA *National Blueprint* states that it will take the combined knowledge, skills, and resources of all systems, services, communities, and individuals to ensure that all children will grow up safely, in loving families and supportive communities, with everything they need to flourish—and with connections to their culture, ethnicity, race and language.

The CWLA *National Blueprint* serves as a foundation for our *Standards of Excellence* and a framework for all children, youth and families.

Although the formal child welfare system has a specific role to play for children who have been or are at risk of abuse and neglect, responsibility for the well-being of children and youth extends well beyond traditional child welfare. By aspiring to the standards detailed in the CWLA *National Blueprint*, families, individuals, communities, providers, and other organizations can create the greatest opportunities for all children and youth to succeed and flourish.



Item # 1521 • Retail price: \$24.95 • CWLA Member Rate: \$19.96

Order online at www.cwla.org/pubs or call 800-407-6273